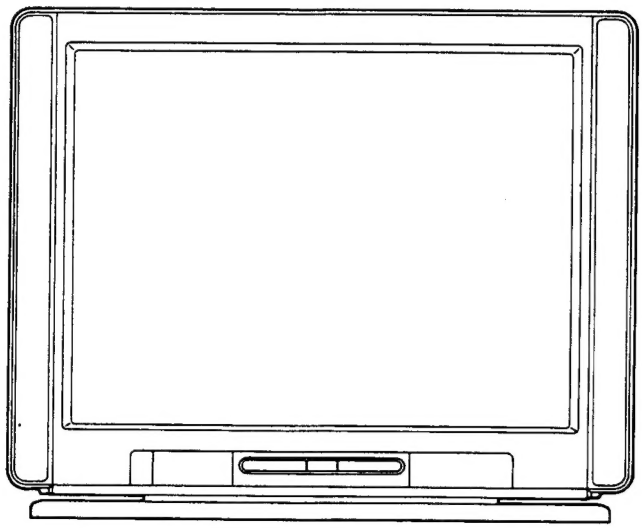
1992

MITSUBISHI

Service Manual



MODÈLE

CT-25B2FSM
CT-29B2FSM

MITSUBISHI ELECTRIC

CARACTERISTIQUES

SYSTEME DE RECEPTION:	STANDARD FRANCAIS ET CCIR (L/B/G/I)
SYSTEME DE COULEUR:	PAL/SECAM NTSC 3.58 4.43 MHz
CANAUX:	VHF E2-E12; A-H; J; R1-R3; R6-R12; F2-F10 M1-M10; A-H; H1; H2; S1-S3; S11-S41; H21-H34; B-Q UHF E-21-E-69; H35-H41.
TENSION SECTEUR:	230 V 50Hz
CONSOMMATION:	92 W[CT-25B2FSM] 108 W[CT-29B2FSM]
ENTREE ANTENNE:	75 OHMS
FREQUENCE INTERMEDIAIRE:	VIDEO : 38.9MHz 34.47MHz (CCIR-L: V_L) SON : 32.4 MHz (CCIR-L: $V_{H,U}$) 40.97MHz (CCIR-L: V_L) 33.4MHz (CCIR-B/G) 32.9MHz (CCIR-I)
FREQUENCE INTERPORTEUSE:	
SORTIE AUDIO:	40W (TOTAL PUISSANCE MUSICALE)
HAUT-PARLEURS:	3.2" (8cm) X 4.7" (12cm) ovel 2pcs 3.9" (10cm) round 1pcs
CHASSIS:	EURO 11
TUBE CATHODIQUE:	A59ECY13X01 [CT-25B2FSM] 25" 110° Deflection A68EAU28X01 [CT-29B2FSM] 29" 110° Deflection
EBENISTERIE DIMENSIONS (APPROX.):	L616 mm/H517mm/P482.1mm [CT-25B2FSM] L700mm/H578mm/P485.3mm [CT-29B2FSM]
POIDS (APPROX):	33KG [CT-25B2FSM] 42KG [CT-29B2FSM]

PRECAUTIONS DE SECURITE

NOTE : Observer les recommandations de sécurité se trouvant sur le chassis et au fond de l'appareil.

AVERTISSEMENT

1) Avant de réaliser des mesures sur le téléviseur, utiliser un transformateur d'isolation entre le secteur et celui-ci.
2) La mise sous tension d'un poste à chassis ouvert implique la présence de très hautes tensions dans le poste. En conséquence, seules des personnes suffisamment familiarisées avec les précautions d'usage peuvent entreprendre un travail sur l'appareil.
3) Ne pas installer, démonter ou manipuler un tube cathodique sans porter des lunettes de précaution. Pendant la manipulation, tenir le tube éloigné de soi et ne pas laisser approcher le personnel ne portant pas de lunettes de protection.
4) Si une intervention est requise, observer le cablage d'origine, et tout particulièrement dans la partie très haute tension de l'appareil. Si un court-circuit est détecté, remplacer les composants montrant des signes évidents d'échauffement.

CONTROLE STATIQUE DE COURANT DE FUITE

Il est recommandé d'effectuer le contrôle de courant de fuite suivant la méthode ci-dessous avant de retourner l'appareil à l'utilisateur.

Déconnecter le cordon secteur de la prise 220 V AC, et court-circuiter les deux bornes du cordon.
Mettre l'interrupteur secteur en position Marche et brancher un Ohmmètre entre l'une des bornes court-circuitées du cordon secteur et une quelconque partie métallique extérieure du poste (tête de vis, poignée, métallique etc...).
Les parties métalliques extérieurement accessibles et ayant un chemin de retour au chassis, doivent avoir une résistance minimale de 1 Megohm. Une mesure en dessous de cette valeur indique une anomalie qui exige une intervention.

CHEMIN DE CABLE

The lead wires to be clamped are listed in the table below.

Note: The inner wires are routed or clamped so that they do not come close to the heat generating or high-tension parts. After servicing route all wires in their original position.

The anode lead wires are routed so no tensile strength is applied to the anode cap. If the mounting angle of the anode cap and the route of the anode lead wires are changed, return them to the initial angle and route.

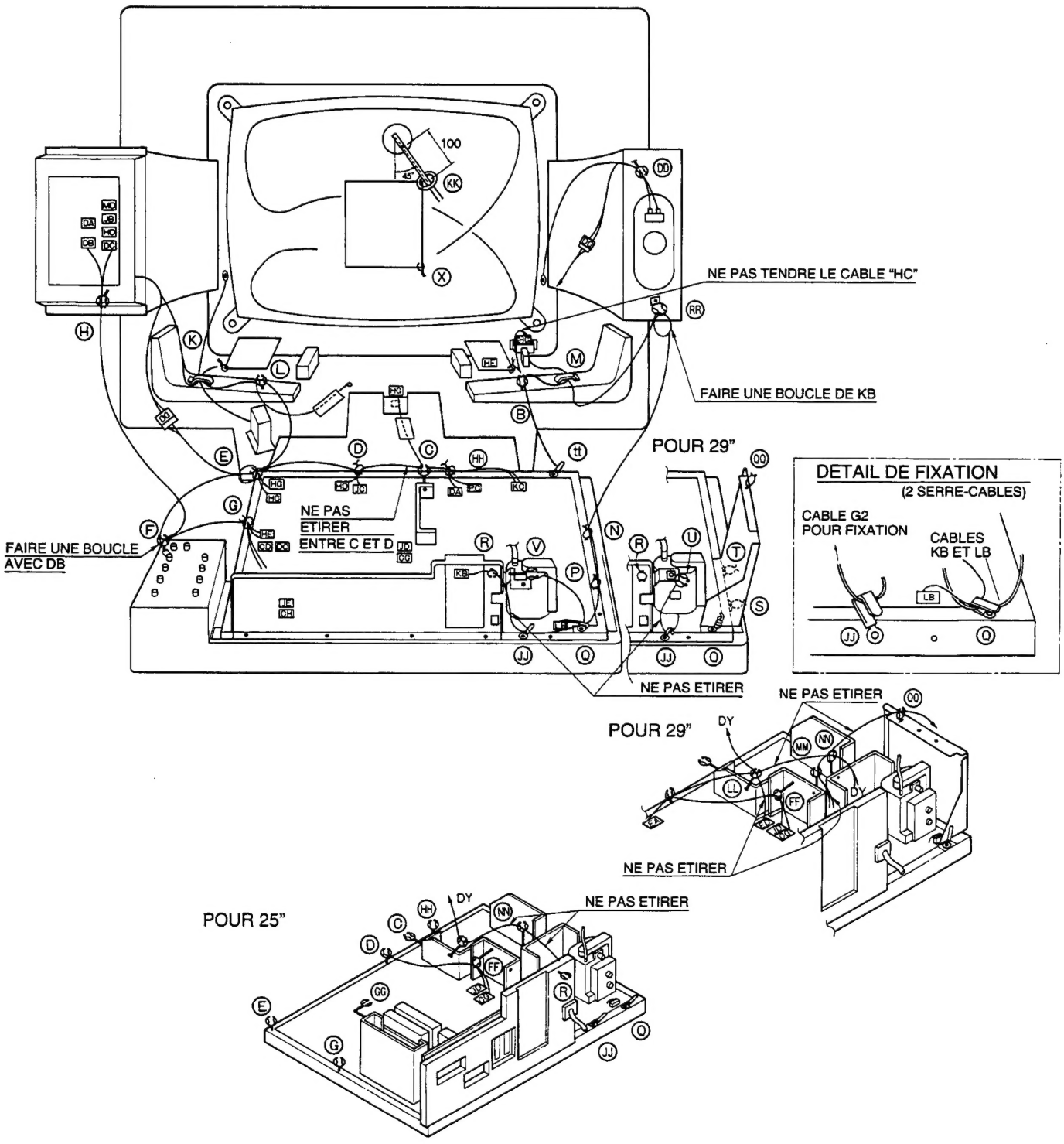


Fig. 1

CONNECTEURS POUR FIXATIONS

REPÈRE		CONNEXIONS À FIXER
25"	29"	
B	B	HE, HC, JD, JE, KC, PC
C	C	HE, HC, DA, DG, JD, JE
D	D	JE, JD, HE, HG, HC, DA, HD, JC, DG
E	E	HE, HG, HC, CG, DA, HD, CH, JC, JD, JE
F	F	JC, DA, DC, HD, JB, DB, CD, CG, CH, MD
G	G	HE, CD, DC, HG, JE, JC,HC,DA,HD
H	H	DA, DC, HD, MD, JB, DB
K	K	JB,CD,DG,CG,CH
L	L	CD, JB, DG, CG, CH,JC,MD
M	M	PC, KC, KB
N		KB
P		KB
Q		KB, LB
R	R	KB
	S	KB
	T	KB
	U	LB, CABLE G2, CABLE FOCUS, KB
V		LB, CABLE G2, CABLE FOCUS, KB
X	X	2 SERRE-CABLES
DD	DD	DG
FF	FF	JD, CG, GA
TT	TT	PC, KC, HE, HC, JD, JE
GG	GG	JE, CH, JD, CG
HH	HH	DA, PC, KC, HE, HC, JD, JE, DG
JJ	JJ	CABLE G2
KK	KK	CABLE ANODE
LL		DY
	LL	ED, DY (EB, EC)
	MM	EE, EG
NN		DY
	NN	EG, EE, DY (EB, EC), ED
	QQ	EB, EC, ED, EE, EG
RR	RR	KB

FIXATIONS POUR CONNECTEURS

REPÈRE		CONNEXIONS À FIXER
25"	29"	
CABLE ANODE	CABLE ANODE	KK
CABLE FOCUS		V
	CABLE FOCUS	U
CABLE G2		V-JJ
	CABLE G2	U-JJ
CD	CD	K-L-F-G
CG	CG	K-L-E-F-GG-FF
CH	CH	L-E-F-GG
DA	DA	HH-C-D-E-G-F-H
DB	DB	F-H
DC	DC	G-F-H
DG	DG	DD-HC-D-L-K
DY	DY (EB, EC)	NN-LL
	EB	QQ
	EC	QQ
ED		NN
	ED	LL-QQ
	EE	MM-NN-QQ
	EG	MM-NN-QQ
GA	GA	FF
HC	HC	E-D-C-HH-TT-B
HD	HD	D-E-G-F-H
HE	HE	G-E-D-C-TT
HG	HG	G-E-D-C
JB	JB	H-F-K-L
JC	JC	D-E-F-G-E-L
JD	JD	FF-GG-E-D-C-HH-TT-B
JE	JE	GG-G-E-D-C-HH-TT-B
KB		R-JJ-V-Q-P-N-RR-M
	KB	R-U-Q-S-T
KC	KC	HH-TT-B-M
	KM	M
LB		Q-V
	LB	U-Q
MD	MD	H-F-L
PC	PC	HH-TT-B-M
SA	SA	2 SERRE-CABLES

AVANT AJUSTEMENT	1. Avant ajustement, ôter les platines PCB SON, PCB AV, PCB TEXTE et la PCB PCC (pour le CT-29B2FSM) de la platine principale.Afin de faciliter les ajustements, utiliser les JIG (REF N°859C431O30 "PCB TEXTE") et (REF N°859C431O50 "PCB A/V ET SON). 2. Oter les 2 vis puis soulever la platine du chassis. **NOTE** 1. Oter la PCB A/V puis ôter les platines SON et TEXTE 2. Lors de l'ajustement ou la rotation du TV, prendre garde de ne pas se pincer les doigts entre l'embase et le TV.

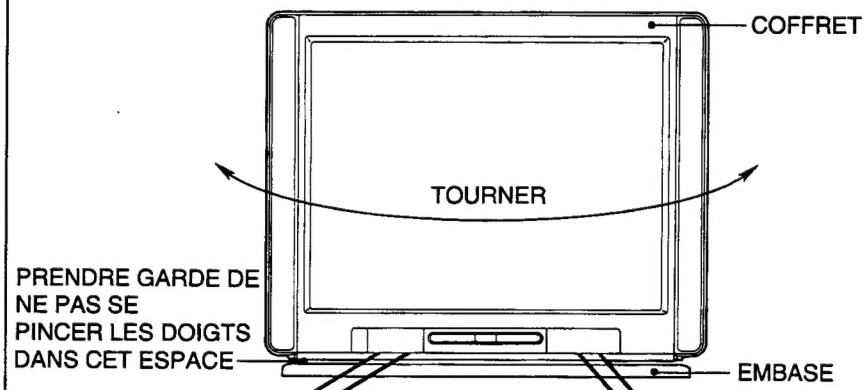


Fig. 2

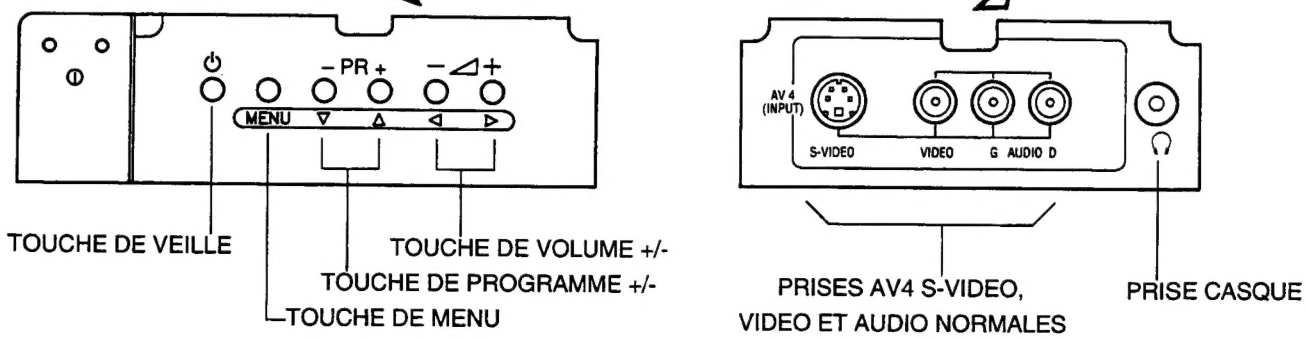


Fig. 3 Contrôle

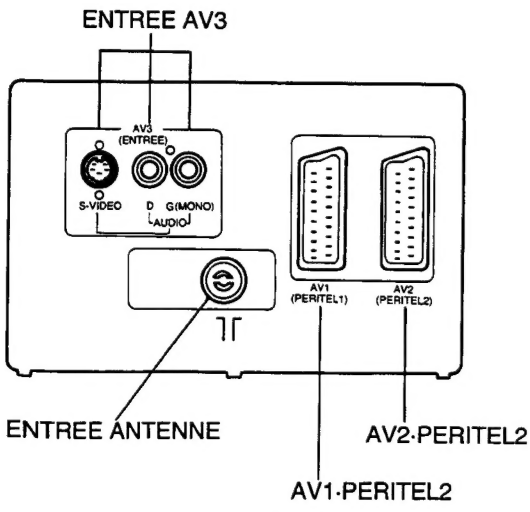
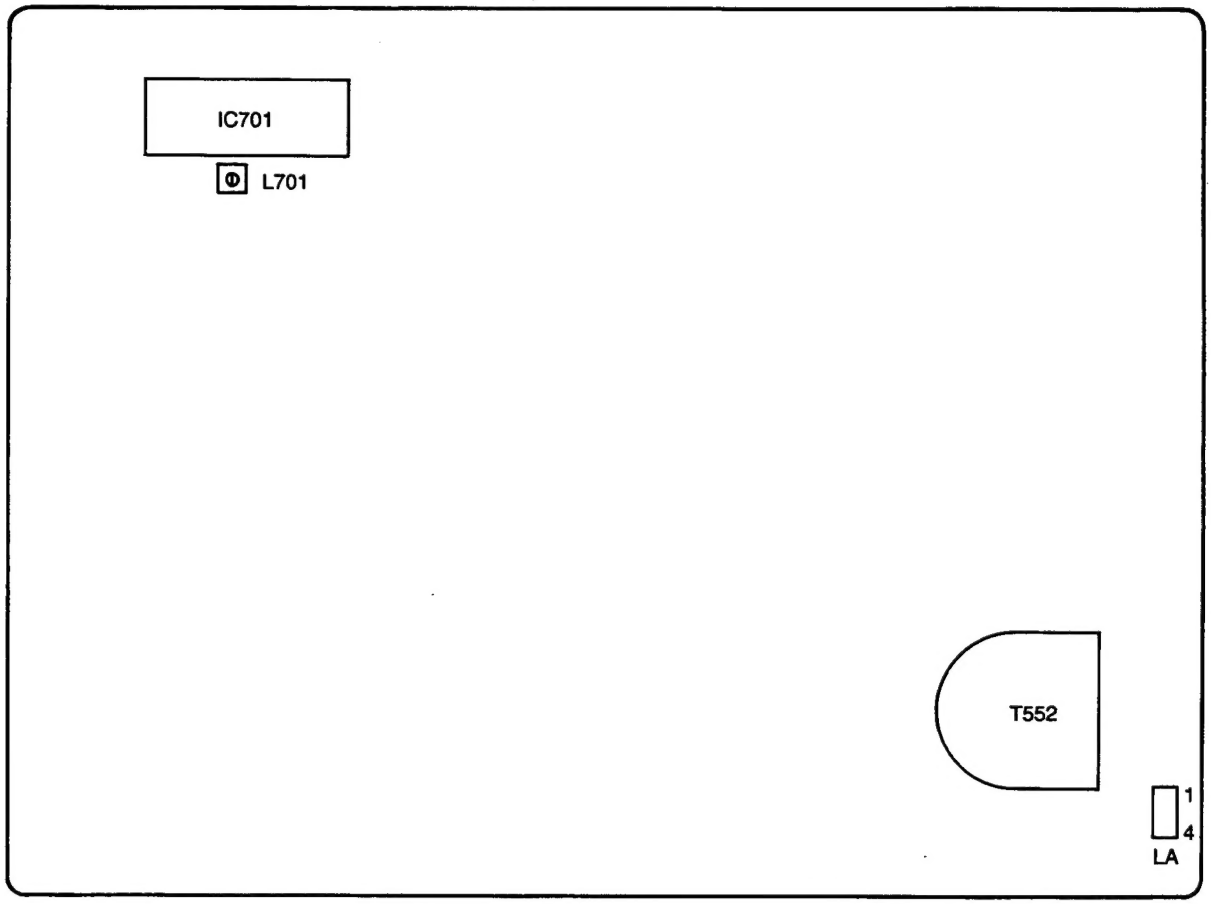


Fig. 4 VUE ARRIERE

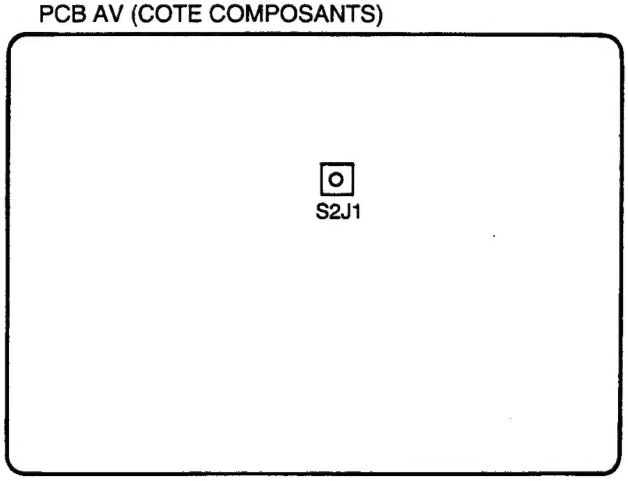
RACCORDEMENTS A LA PRISE PERITEL

BROCHE	AV1	AV2	BROCHE	AV1	AV2
1	SORTIE AUDIO DROITE		12	NON CONNECTE	
2	ENTREE AUDIO DROITE		13	MASSE ROUGE	NON CONNECTE
3	SORTIE AUDIO GAUCHE		14	MASSE SUPPRESSION	NON CONNECTE
4	MASSE AUDIO		15	ENTREE ROUGE	NON CONNECTE
5	MASSE BLEU	NON CONNECTE	16	ENTREE SUPPRESSION	NON CONNECTE
6	ENTREE AUDIO GAUCHE		17	MASSE SORTIE VIDEO	
7	ENTREE BLEU	NON CONNECTE	18	MASSE ENTREE VIDEO	
8	COMMUTATION LENTE		19	SORTIE VIDEO	
9	MASSE VERT	NON CONNECTE	20	ENTREE VIDEO	
10	NON CONNECTE		21	MASSE COMMUNE	
11	ENTREE VERT	NON CONNECTE			

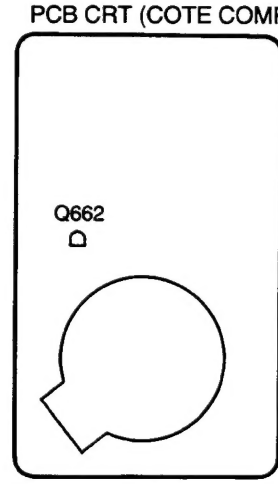
PLATINE PRINCIPALE (COTE COMPOSANTS)



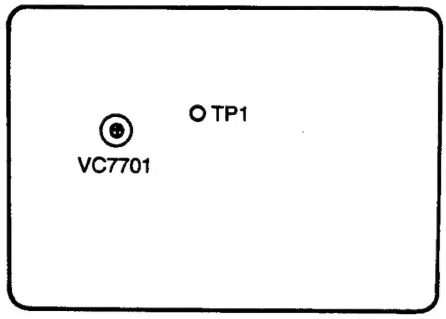
PCB AV (COTE COMPOSANTS)



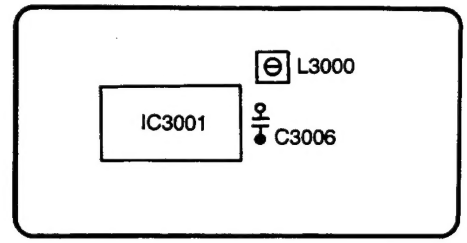
PCB CRT (COTE COMPOSANTS)



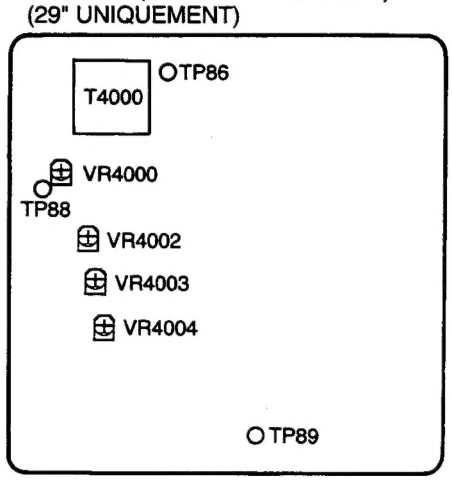
PCB TEXTE (COTE COMPOSANTS)



PCB SON (COTE COMPOSANTS)



PCB PCC (COTE COMPOSANTS)
(29" UNIQUEMENT)

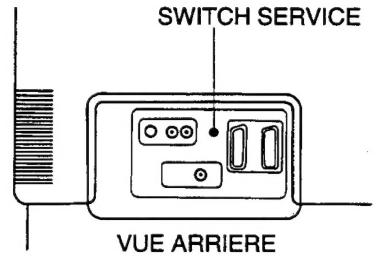


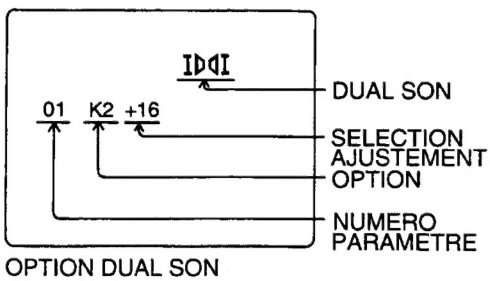
UTILISATION DE LA TELECOMMANDE

Ce téléviseur est normalement ajusté à l'aide de la télécommande, en effet, il est possible d'accéder à l'EEPROM et d'y modifier ses données.

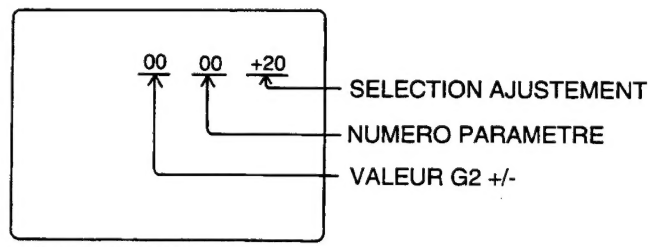
1. Mettre le téléviseur sous tension.
   Presser le switch service (S2J1), puis la touche "9" de la télécommande dans les 5 secondes qui suivent afin de passer en mode service.

2. Presser la touche "CM" pour sélectionner les circuits VCJ ou DUAL SOUND.





OPTION DUAL SON

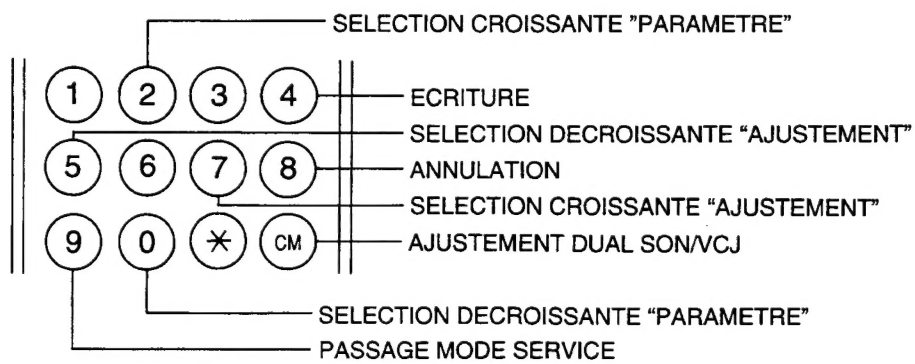


AJUSTEMENT VCJ

3. Presser les touches "2" ou "0" (pour accroître ou décroître le nombre correspondant au paramètre à ajuster).

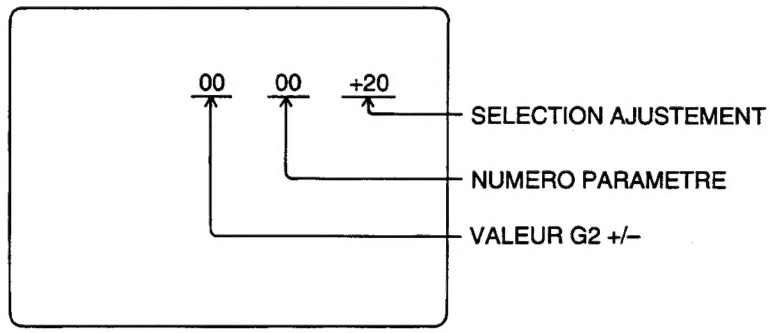
4. Presser la touche "7" (afin d'augmenter la valeur de l'ajustement) ou la touche "5" (pour diminuer cette même valeur).

5. Lorsque la juste valeur est trouvée, presser la touche "4" (écriture) afin de transférer les informations dans l'EEPROM. Si vous désirez annuler votre nouvel ajustement, presser la touche "8" ou l'interrupteur Marche/Arrêt. Dans ce cas, l'EEPROM conservera la dernière valeur mémorisée.



AVANT AJUSTEMENT

1. Appliquer un signal d'antenne.
2. Presser le switch service (S2J1) et la touche "9" de la télécommande dans les 5 seconds qui suivent pour accéder au mode service.
3. Presser la touche "CM" pour sélectionner le circuit VCJ.
4. S'assurer que les informations G2 +/– sont à "00".
   Si ce n'est pas le cas, afficher "00" à l'aide du potentiomètre positionné sur le transfo THT.

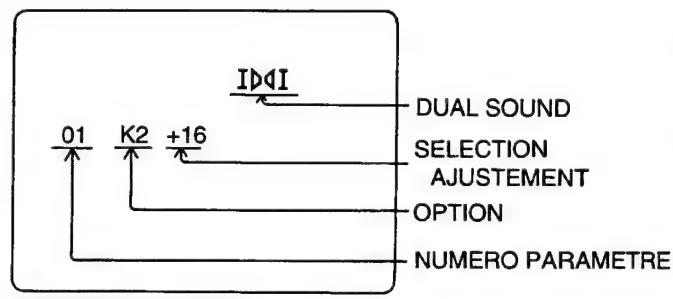


AJUSTEMENT VCJ

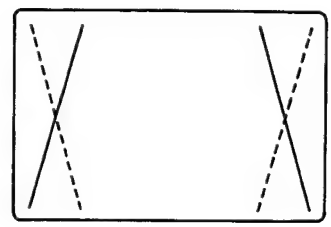
AJUSTMENT

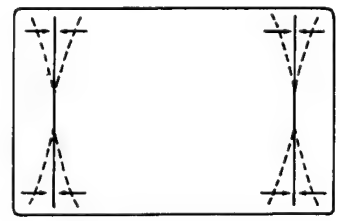
No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
1	OPTION	• 03 (TUNER PACK) • 04 (E11/E12) • 05 (DUAL SOUND) • 06 (COULEUR) • 07 (TEXTE) • 08 (AV4) • 09 (NICAM IC)	1. Sélectionner DUAL SOUND/OPTION. 2. Presser les touches "2" ou "0" de la télécommande afin de sélectionner le nombre correspondant au paramètre à ajuster. Afficher chaque valeur de paramètre comme montré ci-dessous. 3. Presser la touche "4" (écriture) de la télécommande pour accéder à l'EEPROM.

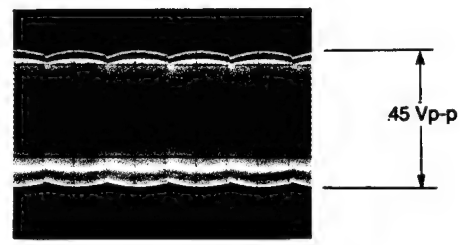
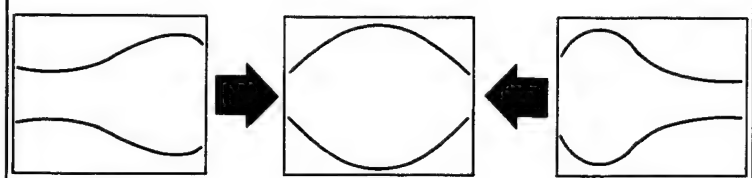
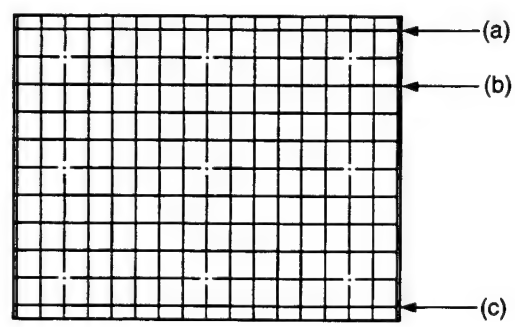
MODELE	AJUSTEMENT DES VALEURS						
	03	04	05	06	07	08	09
CT-29B2FSM	4	1	2	3	2	1	0
CT-25B2FSM	4	1	2	3	2	1	0



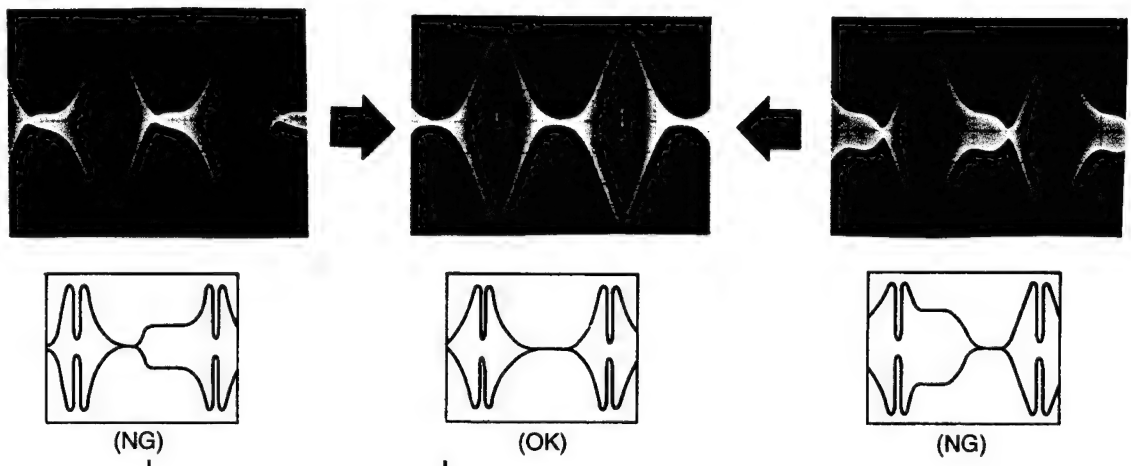
OPTION DUAL SON

No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
		CIRCUIT DEFLECTION	
Avant l'ajustement, afficher la valeur du paramètre "01" (modifie l'amplitude) à "-32".			
2	PAL CENTRE HORIZONTAL	• 09 (PHASE HORIZONTALE)	1. Connecter un magnétoscope en lecture d'une cassette d'alignement (MONOSCOPE PAL). 2. Sélectionner l'ajustement VCJ. 3. Ajuster le paramètre "09" avec les touches "2" ou "0" de la télécommande. 4. Ajuster chaque repère de manière à centrer l'image à l'aide des touches "5" et "7" de la télécommande.
3	PAL AMPLITUDE HORIZONTAL	• 06 (AMPLITUDE HORIZONTALE)	1. Connecter un magnétoscope en lecture d'une cassette d'alignement (MONOSCOPE PAL). 2. Sélectionner l'ajustement VCJ. 3. Ajuster le paramètre "06" avec les touches "2" ou "0" de la télécommande. 4. Ajuster l'amplitude horizontale à l'aide des touches "5" et "7" de la télécommande.
4	PAL EST/OUEST PCC	• 05 (CORRECTION DES COINS)	1. Appliquer un signal EXT. (PAL/CONVERGENCE). 2. Sélectionner l'ajustement VCJ. 3. Ajuster le paramètre "05" à l'aide des touches "2" ou "0" de la télécommande. 4. Ajuster la valeur à "-32" pour un "25" ou "–25" pour un "29" à l'aide des touches "5" ou "7" de la télécommande.
		• 03 (PARABOLE)	5. Sélectionner le paramètre "03" (PARABOLE) à l'aide des touches "2" ou "0" de la télécommande. 6. Observer les secondes lignes de chaque coté de l'écran. Ajuster si nécessaire à l'aide des touches "5" et "7" de la télécommande jusqu' à obtention d'une distortion symétrique dans le haut et dans le bas de l'écran. 

No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
		• 02 (PARABOLE)	7. Sélectionner le paramètre "02" (PARABOLE/AMP) à l'aide des touches "2" et "0" de la télécommande. 8. Aligner chaque ligne verticale à l'aide des touches "5" et "7" de télécommande. Répéter les étapes de 1 à 7 si nécessaire.  9. Connecter un magnétoscope et lire une cassette d'alignement (PAL/MONOSCOPE). 10. Vérifier l'amplitude horizontale et le centre horizontal. Si nécessaire, répéter les étapes 2 et 3.

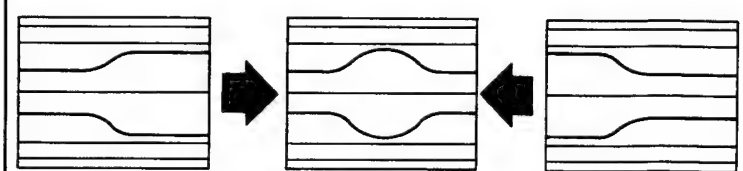
No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
5	PAL NORD/SUD PCC (29" seulement)	• Oscilloscope en TP86 (PCB PCC) et la masse en TP88 (PCB PCC) DIV 1V TIME 100ms. SONDE (1/10e) • VR4000 (PCB PCC) • VR4002 (PCB PCC) • T4001 (PCB PCC)	1. Appliquer un signal EXT. (PAL/CONVERGENCE). 2. Presser la touche "OPTIMUM". 3. Tourner les potentiomètres suivant VR4000, VR4002 et VR4003 à fond dans le sens des aiguilles d'une montre. (Vue côté composants). 4. Ajuster T4001 pour obtenir une tension de 45V p/p.  5. Observer la ligne en haut de l'écran (a). Ajuster T4001 pour optimaliser la phase nord/sud.(voir fig. ci-dessus).  

No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
		• Oscilloscope en TP89 (PCB PCC) DIV 2V TIME 5ms. SONDE (1/10e) • VR4004 (PCB PCC)	6. Ajuster VR4004 pour que le signal BALANCE soit comme montré ci-dessous.



(NG) (OK) (NG)

7. Ajuster VR4002 et VR4003 pour que les premières linges en haut (a) et en bas (c) de l'écran soient horizontales (voir fig. page 12).
8. Observer la troisième ligne (b) (voir fig. page 12) en haut de l'écran, ajuster T4002 afin d'obtenir la phase optimale comme montré sur la fig. ci-dessous.



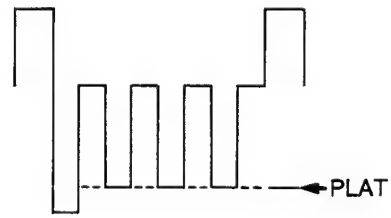
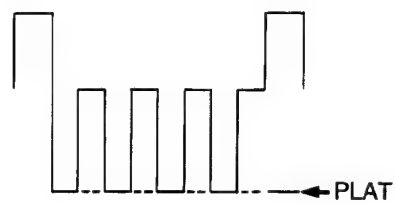
(NG) (OK) (NG)

9. Ajuster VR4000 pour que la troisième ligne en haut de l'écran soit parfaitement horizontale.

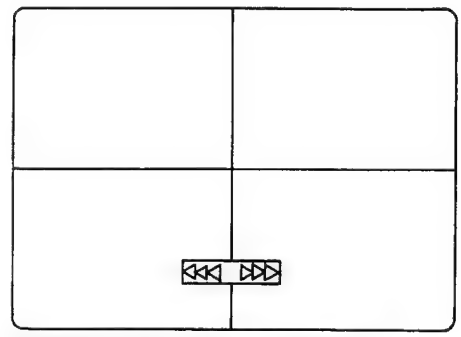
<table>
<tr><th>No.</th><th>ITEM</th><th>METHODE D' AJUSTEMENT</th><th>PROCEDURE D' AJUSTEMENT</th></tr>
<tr><td>6</td><td>PAL
AMPLITUDE
LINEARITE</td><td>• 00 (VERTICALE AMPLI)
• 04 (VERTICALE LIN)</td><td>1. Connecter un magnétoscope et lire une cassette d'alignement (PAL/MONOSCOPE).
2. Sélectionner l'ajustement VCJ.
3. Ajuster le paramètre "00" (V-AMPLITUDE) à l'aide des touches "2" ou "0" de la télécommande.
4. Positionner le centre du cercle (signal monoscope) et ajuster la géométrie de celui-ci à l'aide des touches "5" ou "7" de la télécommande.
5. Sélectionner le paramètre "4" (V-LIN) à l'aide des touches "2" ou "0" de la télécommande.
6. Egaliser le demi cercle supérieur et le demi cercle inférieur à l'aide des touches "7" et "5" de la télécommande.
7. Sélectionner le paramètre "00" (V-AMPLI) à l'aide des touches "2" ou "0" de la télécommande.
8. Positionner le centre du cercle (signal monoscope) et ajuster la géométrie de celui-ci à l'aide des touches "5" ou "7" de la télécommande.
9. Répéter les étapes ci-dessus si nécessaire.</td></tr>
<tr><td>7</td><td>PAL
VERTICALE
POSITION CENTRE</td><td>• 08
(VERTICALE POSITION)</td><td>1. Connecter un magnétoscope et lire une cassette d'alignement (PAL/MONOSCOPE).
2. Sélectionner l'ajustement VCJ.
3. Ajuster le paramètre "08" (V-POSITION) à l'aide des touches "2" ou "0" de la télécommande.
4. Positionner les repères horizontaux du monoscope à ± 3mm du centre vertical de l'écran à l'aide des touches "7" et "5" de la télécommande.</td></tr>
<tr><td>8</td><td>NTSC 60Hz
CIRCUIT
DEFLECTION</td><td>• 33 (H-PHASE)
• 31 (H-AMPLI)
• 30 (PARABOLE-AMPLI)
• 2F (V-AMPLI)
• 32 (V-POSITION)</td><td>1. Appliquer un signal EXT. (NTSC géométrie 60Hz).
2. Sélectionner l'ajustement VCJ.
3. Sélectionner successivement les paramètres à l'aide des touches "2" ou "0" de le télécommande puis ajuster les valeurs comme indiqué dans la table ci-dessous à l'aide des touches "7" ou "5" de la télécommande.
<table>
<tr><th rowspan="2">MODELE</th><th colspan="5">AJUSTEMENT DES VALEURS</th></tr>
<tr><th>33</th><th>31</th><th>30</th><th>2F</th><th>32</th></tr>
<tr><td>CT-29B2FSM</td><td>+6</td><td>+2</td><td>0</td><td>+2</td><td>-11</td></tr>
<tr><td>CT-25B2FSM</td><td>+5</td><td>+2</td><td>+2</td><td>+2</td><td>-12</td></tr>
</table>
</td></tr>
</table>

No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
9	BLANC	• 0A (B-AMPLI) • 0B (G-AMPLI) • 0C (R-AMPLI)	1. Connecter un magnétocope en lecture d'une cassette d'alignement (MONOSCOPE/PAL). 2. Sélectionner l'ajustement VCJ. 3. Sélectionner les paramètres "0A", "0B" et "0C".Les ajuster successivement à "0" à l'aide des touches "2" ou "0" et "7" ou "5" de la télécommande. 4. Ajuster les paramètres "0A" et "0C" afin d'obtenir un écran blanc.
10	FOCUS	• CONTROLE FOCUS (TRANSFO THT)	1. Appliquer un signal RF. 2. Ajuster le CONTROLE FOCUS afin d'obtenir la meilleure focalisation.

No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
		CIRCUIT VIDEO	
		Procéder aux réglages du circuit déflection avant de commencer les réglages ci-après. Mettre l'appareil sous tension pendant au moins 20 minutes avant de procéder à ces réglages.	
11	Circuits Video	• CONTROLE G2 (TRANSFO THT)	1. Connecter un magnétoscope en lecture d'une cassette d'alignement (PAL/MONOSCOPE). 2. Sélectionner l'ajustement VCJ. 3. S'assurer que le G2 +/– est positionné sur "00". Si ce n'est pas le cas, ajuster le G2 positionné sur le TRANSFO LIGNE quelque soit le paramètre sélectionné. 4. Appliquer un signal EXT. (géométrie). 5. Ajuster si nécessaire la tension G2 à "00". Appliquer à nouveau un signal monoscope et s'assurer que le G2 est à "00".
		• 0F (SATURATION COULEUR)	6. Appliquer un signal EXT. (BARRES DE COULEUR). 7. Sélectionner le paramètre "0F" (SATURATION COULEUR) à l'aide des touches "2" ou "0" de la télécommande.
		• 0E (LUMINANCE)	8. Ajuster la valeur à "-32" à l'aide "7" ou "5" de la télécommande. 9. Sélectionner le paramètre "0E" (LUMINANCE) à l'aide des touches "2" ou "0" de la télécommande. 10. S'assurer que la barre bleue ne se distingue pas. 11. Faire légèrement apparaître la barre rouge sans rendre la barre bleue visible à l'aide des touches "7" ou "5" de la télécommande.
		• Amperemetre DC le (+) en broche 1 du connecteur LA (PCB MAIN) • Le (–) en broche 2 du connecteur LA (PCB MAIN) • 0D (CONTRASTE)	12. Sélectionner la paramètre "0D" (CONTRASTE) à l'aide des touches "2" ou "0" de la télécommande. 13. Ajuster le courant de faisceau aux valeurs données dans le tableau ci-dessous à l'aide des touches "7" ou "5" de la télécommande. 25" 29" COURANT DE FAISCEAU 700±20µA 800±20µA 14. Si l'étape 13 rend la barre bleue lumineuse, ajuster à nouveau le paramétre "0E"(LUMINANCE) pour l'assombrir. 15. S'assurer que le G2 est toujours à "00". Si ce n'est pas le cas, répéter les étapes de 1 à 13.

No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
12	SORTIE COULEUR	• Oscilloscope CH1 sur la base de Q662 (PCB CRT) • 0F (SATURATION COULEUR)	*Procèder à ces réglages après ajustement des circuits vidéo et blanc. 1. Appliquer un signal EXT. (BARRES DE COULEUR PAL) 2. Sélectionner l'ajustement VCJ. 3. Sélectionner le paramètre "0F" (SATURATION COULEUR) à l'aide des touches "2" ou "0" de la télécommande. 4. Ajuster le signal comme montré en fig. ci-dessous à l'aide des touches "7" ou "5" de la télécommande. 
		• 10 (HUE)	5. Appliquer un signal EXT. (BARRES DE COULEUR NTSC) 6. Sélectionner le paramètre "10" (HUE) à l'aide des touches "2" ou "0" de la télécomande. 7. Ajuster le signal comme montrè ci-dessous à l'aide des touches "7" et "5" de la télécomande.  8. Après avoir réalisé les étapes ci-dessus, augmenter de 5 digites le paramètre "0F" (SATURATION COULEUR).

No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
		CIRCUIT DUAL SOUND	
			Laisser chauffer au moins 3 minutes le téléviseur sur une réception en stéréo avant de procéder aux ajustements.
13	SELF DETECTION SON	• Oscilloscope sur le (+) de C3006 (PCB SOUND) • L3000 (PCB SOUND)	1. Appliquer un signal d'antenne barres de couleur en stéréo comme indiqué dans la table 1. TABLE 1 TAUX DE MODULATION DU SIGNAL PILOTE : 50% CANAL PRINCIPAL : 1 kHz, MODULATION FM 100% (DEVIATION 30kHz) CANAL AUXILIAIRE : 400 Hz, MODULATION FM 100% (DEVIATION 30kHz) PUISSANOE DU SIGNAL D'ENTREE : 70 dB u (IMPEDANCE 75Ω) 2. Ajuster L3000 pour obtenir une amplitude maximale du canal auxiliaire (400 Hz) sur l'oscilloscope. (SORTIE DETECTION). **NOTE:** L'amplitude du signal devra être >/= à 0.5V p/p. 3. S'assurer que le signal n'est pas distordu.
14	BALANCE SORTIE DETECTION	• Oscilloscope sur IC3001 broche 7 (PCB SOUND) • 01 (K2)	1. Annuler la modulation du canal principal spécifiée en table 1. 2. Sélectionner l'ajustement DUAL SOUND. 3. Sélectionner le paramètre "01" (K2) à l'aide des touches "2" ou "0" de la télécommande. 4. Ajuster l'amplitude du signal de sortie (400Hz) au minimum à l'aide des touches "5" ou "7" de la télécommande. Ce réglage doit être réalisé avec précaution. Il détermine le crosstalk entre les canaux D et G.

No.	ITEM	METHODE D' AJUSTEMENT	PROCEDURE D' AJUSTEMENT
		CIRCUIT MICRO-PROCESSEUR	
15	POSITIONNEMENT DE L'AFFICHEUR	• L701 (PCB MAIN)	1. Appliquer un signal EXT. (GEOMETRIE). 2. Presser la touche "MENU" sur la télécommande. 3. Ajuster L701 (CHARA) pour que le symbol du plateau tournant soit positionné au centre de l'écran.  SYMBOLE PLATEAU TOURNANT
		CIRCUIT TEXTE	
	Mettre l'appareil sous tension au moins 5 minutes avant de commencer les ajustements.		
16	TELETEXTE FREQUENCE LIBRE	• Frequence METRE en TP1 (PCB TEXTE) • VC7701 (PCB TEXTE)	1. Ne pas appliquer un signal RF. 2. Ajuster VC7701 pour que la fréquence soit 6000.2 ± 0.2kHz.

REMPLACEMENT DU IC 702 (EEPROM)

NOTE : Lors du remplacement du IC702 (EEPROM) et que celle-ci est déjà chargée, procéder selon les étapes 2 et 3. (Ne pas tenir compte des étapes 1 et 4).

NOTE : Lors de son remplacement par une EEPROM non chargée, procéder selon les étapes 1 à 4.

1. Mettre le téléviseur hors tension. Connecter la broche 23 de IC701 à la massa à travers une résistance de 100 Ω (1/4 W)
2. Mettre le téléviseur sous tension, le chargement de IC701 est signalé par le voyant veille.
   Le temps nécessaire pour le chargement est environ de 3 secondes.
   Durant ce temps, la télécommande et le clavier ne sont pas opérationnels.
3. Presser la touche "SECTEUR" sur la télécommande. L'alimentation ne sera rétablie qu'une fois le chargement terminé.
4. Mettre le téléviseur hors tension. Oter la résistance connectée en broche 23 de IC701.

VALEUR INITIALE DE L'EEPROM

VCJ		
AJUSTEMENT N°PARAMETRE	VALEUR INITIALE	PARAMETRE
00	0	V-AMPLI
01	0	V-AMPLI
02	0	PARABOLE-AMPLI
03	0	PARABOLE-TILT
04	0	V-LIN
05	0	CORRECTION COINS
06	0	H-AMPLI
07	0	—
08	0	V-POSITION
09	0	H-PHASE
0A	0	AMPLI-BLEU
0B	0	AMPLI-VERT
0C	0	AMPLI-ROUGE
0D	0	CONTRASTE
0E	0	LUMINANCE
0F	0	SATURATION COULEUR
10	0	HUE
17	111	—
18	110	—
2F	0	V-AMPLI (NTSC)
30	0	PARABOLE AMPLI (NTSC)
31	0	H-AMPLI (NTSC)
32	0	V-POSITION (NTSC)
33	0	H-PHASE (NTSC)

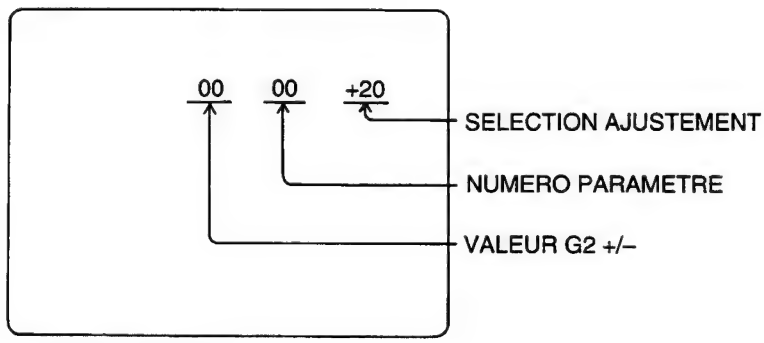
DUAL SOUND		
AJUSTEMENT N°PARAMETRE	VALEUR INITIALE	PARAMETRE
01	+32	K2
OPTION		
03	0	TUNER PACK
04	0	E11/E12
05	0	DUAL SOUND
06	0	COULEURS
07	0	TEXTE
08	0	AV4
09	0	NICAM IC

REMPLACEMENT DU TRANSFORMATEUR LIGNE

1. Appliquer un signal RF (PROGRAMME).
2. Presser le switch service (S2J1), puis la touche 9 de la télécommande dans les 5 secondes qui suivent afin de passer en mode service.
3. Presser la touche "CM" pour sélectionner l'ajustement VCJ.
4. S'assurer que le G2 soit préréglé sur "00". Si tel n'est pas le cas, l'ajuster à "00" à l'aide du potentiomètre placé sur le transformateur ligne.

   Si la valeur du G2 est de:

   "01": tourner le potentiomètre dans le sens inverse des aiguilles d'une montre.
   "10": tourner le potentiomètre dans le sens des aiguilles d'une montre.



AJUSTEMENT VCJ

PARTS LIST

MODEL : CT – 25B2FSM/CT – 29B2FSM

In order to expedite delivery of replacement part orders.
Specify : 1. Model number/Serial number
2. Part number and Description
3. Quantity
Unless full information is supplied, delay in execution of orders will result.

⚠ : Critical components ○ : New Parts

MARK	B	C	D	F	G	J	K
TOLERANCE (%)	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
TOLERANCE (%)	± 20	± 30	+ 10 – 10	+ 40 – 20	+ 80 – 20	+ 100 – 0	+ 30 – 10

MARK	B	C	D	F	G
TOLERANCE (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

ABBREVIATION

[25] : CT – 25B2FSM
[29] : CT – 29B2FSM

[25] : CT – 25B2FSM [29] : CT – 29B2FSM

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
		TUBES		
⚠ V 271	255P930010	CRT ASSY	A59ECY13X01	[25]
⚠ V 271	255P919020	CRT ASSY	A68EAU27X01	[29]
		INTEGRATED CIRCUITS		
IC201	272P590010	IC	MC44000	
IC202	272P124010	IC	NJM2209S	
IC203	272P181010	IC	CX20125	
IC251	272P027010	IC	AN5862K	
IC2J1	272P575010	IC	CXA1114P	
IC2J2	263P066020	IC	TC4066BP	
IC361	272P459010	IC	TA8200AH/MC13500	
IC3J1	263P066020	IC	TC4066BP	
IC3S1	272P525010	IC	μPC1406HM(MS)	
IC3S2	266P172010	IC	M5218L	
IC3S3	272P459020	IC	TA8200AH	
IC3001	263P431010	IC	MC44130P	
IC3002	272P655010	IC	TA7337P	
IC3003	263P066020	IC	TC4066BP	
IC451	272P588020	IC	TDA8178S	
IC4000	266P546010	IC	RC4558P	[29]
IC4001	266P546010	IC	RC4558P	[29]
IC4002	263P066020	IC	TC4066BP	[29]
IC551	272P406010	IC	TEA2031A	
IC601	272P591010	IC	MC44140	
IC602	272P170010	IC	TDA4565 CTI	
IC701	263P432020	IC	CXP80424-123S	
IC702	263P434020	IC	X24C04P	
IC704	274P008050	IC	MN1380-T	
IC7705	272P096020	IC	SAA5231	
IC7706	272P095050	IC	SAA52430/E	
IC7707	263P622020	IC	HM6264ALSP10/12	
IC7708	263P434010	IC	X24C02P	[25]
IC7708	274P171010	IC	ST24C02A	[29]
IC7709	272P193010	IC	MAB8461P	
IC801	272P025010	IC	LB1645N	
IC901	272P514010	IC	TEA2261	
IC950	272P412010	IC	TEA5170	
IC951	267P076010	IC	SI-3120C	
IC952	267P076030	IC	SI-3050C	
IC954	266P922010	IC	μPC78M05H	
IC955	266P010020	IC	μPC574J-K	
		TRANSISTORS		
Q 101	260P387030	TRANSISTOR	2SC2236-Y	
Q 102	260P543050	TRANSISTOR	JC501-Q	
Q 103	260P543050	TRANSISTOR	JC501-Q	
Q 104	260P543050	TRANSISTOR	JC501-Q	
Q 201	260P543050	TRANSISTOR	JC501-Q	
Q 202	260P543050	TRANSISTOR	JC501-Q	
Q 203	260P635010	TRANSISTOR	2SC3065F/2SC3065G	
Q 204	260P543050	TRANSISTOR	JC501-Q	
Q 205	260P543050	TRANSISTOR	JC501-Q	
Q 251	260P543050	TRANSISTOR	JC501-Q	
Q 252	260P543050	TRANSISTOR	JC501-Q	
Q 253	260P543050	TRANSISTOR	JC501-Q	
Q 254	260P543050	TRANSISTOR	JC501-Q	
Q 255	260P654030	TRANSISTOR	2SC2058S-Q	
Q 2J1	260P543050	TRANSISTOR	JC501-Q	
Q 2J2	260P543050	TRANSISTOR	JC501-Q	
Q 2J3	260P543050	TRANSISTOR	JC501-Q	
Q 2J4	260P543050	TRANSISTOR	JC501-Q	
Q 2J5	260P544030	TRANSISTOR	JA101-Q	
Q 2K1	260P543050	TRANSISTOR	JC501-Q	
Q 301	260P387030	TRANSISTOR	2SC2236-Y	
Q 3S2	260P543050	TRANSISTOR	JC501-Q	
Q 3S3	260P544030	TRANSISTOR	JA101-Q	
Q 3S4	260P543050	TRANSISTOR	JC501-Q	
Q 3000	260P543050	TRANSISTOR	JC501-Q	
Q 3001	260P543050	TRANSISTOR	JC501-Q	
Q 3002	260P543050	TRANSISTOR	JC501-Q	
Q 3003	260P544030	TRANSISTOR	JA101-Q	
Q 401	260P543030	TRANSISTOR	JC501-R	
Q 402	260P428020	TRANSISTOR	2SC2168-O, Y	
Q 4000	260P543030	TRANSISTOR	JC501-R	[29]
Q 4001	260P543030	TRANSISTOR	JC501-R	[29]
Q 4002	260P543050	TRANSISTOR	JC501-Q	[29]
Q 4003	260P544040	TRANSISTOR	JA101-R	[29]
Q 4004	260P544030	TRANSISTOR	JA101-Q	[29]
Q 4005	260P427020	TRANSISTOR	2SC1826-Y	[29]
Q 4006	260P544030	TRANSISTOR	JA101-Q	[29]
Q 4007	260P436010	TRANSISTOR	2SD386A-D, E	[29]
Q 4008	260P543030	TRANSISTOR	JC501-R	[29]
Q 4009	260P255040	TRANSISTOR	2SA950-Y	[29]
Q 501	260P543030	TRANSISTOR	JC501-R	
Q 551	260P422010	TRANSISTOR	2SC2482	
Q 552	260P607010	TRANSISTOR	2SD1878	[25]
Q 552	260P608010	TRANSISTOR	2SD1879	[29]
Q 553	260P543050	TRANSISTOR	JC501-Q	
Q 554	260P543050	TRANSISTOR	JC501-Q	
Q 651	260P425080	TRANSISTOR	2SC688-L, M, N	
Q 652	260P425080	TRANSISTOR	2SC688-L, M, N	
Q 653	260P425080	TRANSISTOR	2SC688-L, M, N	
Q 654	260P544030	TRANSISTOR	JA101-Q	
Q 655	260P654030	TRANSISTOR	2SC2058S-Q	
Q 656	260P654030	TRANSISTOR	2SC2058S-Q	
Q 657	260P654030	TRANSISTOR	2SC2058S-Q	
Q 658	260P422010	TRANSISTOR	2SC2482	
Q 659	260P422010	TRANSISTOR	2SC2482	
Q 660	260P422010	TRANSISTOR	2SC2482	
Q 661	260P514010	TRANSISTOR	BF423	
Q 662	260P514010	TRANSISTOR	BF423	
Q 663	260P514010	TRANSISTOR	BF423	
Q 664	260P544030	TRANSISTOR	JA101-Q	[29]
Q 665	260P543050	TRANSISTOR	JC501-Q	
Q 666	260P544030	TRANSISTOR	JA101-Q	
Q 6J1	260P543050	TRANSISTOR	JC501-Q	
Q 702	260P543050	TRANSISTOR	JC501-Q	
Q 703	260P543050	TRANSISTOR	JC501-Q	

[25] : CT – 25B2FSM [29] : CT – 29B2FSM

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 704	260P543050	TRANSISTOR	JC501-Q
Q 705	260P543050	TRANSISTOR	JC501-Q
Q 706	260P635010	TRANSISTOR	2SC3065F/2SC3065G
Q 707	260P635010	TRANSISTOR	2SC3065F/2SC3065G
Q 708	260P543050	TRANSISTOR	JC501-Q
Q 709	260P543050	TRANSISTOR	JC501-Q
Q 710	260P543050	TRANSISTOR	JC501-Q
Q 7704	260P654020	TRANSISTOR	2SC2058S-P
Q 7705	260P543050	TRANSISTOR	JC501-Q
Q 7707	260P543050	TRANSISTOR	JC501-Q
Q 7708	260P544030	TRANSISTOR	JA101-Q
Q 801	260P427020	TRANSISTOR	2SC1826-Y
Q 901	260P663010	TRANSISTOR	2SD1887
Q 902	260P543050	TRANSISTOR	JC501-Q
Q 903	260P543030	TRANSISTOR	JC501-R
Q 951	260P255040	TRANSISTOR	2SA950-Y
Q 952	260P325030	TRANSISTOR	2SC2655-Y
Q 954	260P668010	TRANSISTOR	2SB1135-R, S
Q 955	260P668010	TRANSISTOR	2SB1135-R, S
		DIODES	
D 101	264P464010	DIODE	EQA02-10AB/RD10EB2
D 201	264P501050	DIODE	HZ3BLL
D 202	264P370010	DIODE	1N4148
D 251	264P370010	DIODE	1N4148
D 253	264P370010	DIODE	1N4148
D 254	264P370010	DIODE	1N4148
D 2J0	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2J1	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2J4	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2J5	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2J6	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2J7	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2J8	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2J9	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2K1	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2K2	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2K3	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2K5	264P370010	DIODE	1N4148
D 2K6	264P370010	DIODE	1N4148
D 2K7	264P370010	DIODE	1N4148
D 2L0	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 2L1	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 301	264P464010	DIODE	EQA02-10AB/RD10EB2
D 3S0	264P371010	DIODE	BYD33G
D 3000	264P370010	DIODE	1N4148
D 3001	264P370010	DIODE	1N4148
D 451	264P374020	DIODE	IN4003ID
D 4000	264P374020	DIODE	IN4003ID [29]
D 4001	264P370010	DIODE	1N4148 [29]
D 4002	264P485030	DIODE	RD6.8FB3 [29]
D 4003	264P370010	DIODE	1N4148 [29]
D 4006	264P485030	DIODE	RD6.8FB3 [29]
D 4007	264P370010	DIODE	1N4148 [29]
D 4009	264P370010	DIODE	1N4148 [29]
D 4010	264P470080	DIODE	EQA02-32C/RD33EB4 [29]
D 551	264P371010	DIODE	BYD33G
D 554	264P375020	DIODE	BY228
D 555	264P378010	DIODE	BYW96E
D 556	264P371010	DIODE	BYD33G
D 557	264P460060	DIODE	EQA02-05C/RD5.1EB1
D 558	264P370010	DIODE	1N4148
D 559	264P370010	DIODE	1N4148
D 560	264P370010	DIODE	1N4148
D 562	264P371010	DIODE	BYD33G
D 563	264P371010	DIODE	BYD33G
D 564	264P464050	DIODE	EQA02-10C
D 565	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 601	264P370010	DIODE	1N4148
D 651	264P370010	DIODE	1N4148
D 652	264P370010	DIODE	1N4148
D 653	264P370010	DIODE	1N4148
D 654	264P371010	DIODE	BYD33G
D 655	264P370010	DIODE	1N4148
D 656	264P370010	DIODE	1N4148
D 657	264P370010	DIODE	1N4148
D 658	264P370010	DIODE	1N4148 [29]
D 659	264P370010	DIODE	1N4148 [29]
D 660	264P370010	DIODE	1N4148 [29]
D 6J1	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 6J2	264P462090	DIODE	EQA02-08A/RD7.5EB3
D 702	264P461040	DIODE	EQA02-06A/RD5.6EB2
D 703	264P370010	DIODE	1N4148
D 7X1	264P393010	LIGHT EMITTING DIODE	SLC-26VR5F
D 7X2	264P393020	LIGHT EMITTING DIODE	SLC-26GG5F
D 7705	264P370010	DIODE	1N4148
D 7708	264P370010	DIODE	1N4148
D 7709	264P370010	DIODE	1N4148
D 7710	264P370010	DIODE	1N4148
D 7711	264P370010	DIODE	1N4148
D 7712	264P370010	DIODE	1N4148
D 7713	264P370010	DIODE	1N4148
D 7714	264P370010	DIODE	1N4148
D 7715	264P370010	DIODE	1N4148
D 801	264P488040	DIODE	RD13FB3
D 802	264P463090	DIODE	EQA02-09D/RD10EB1
D 901	264P376010	DIODE	BYW56
D 902	264P376010	DIODE	BYW56
D 903	264P376010	DIODE	BYW56
D 904	264P376010	DIODE	BYW56
D 905	264P371010	DIODE	BYD33G
D 906	264P372010	DIODE	BYV96E
D 907	264P481050	DIODE	RD3.0FB1
D 908	264P481050	DIODE	RD3.0FB1
D 909	264P458090	DIODE	RD4.3EB2
D 910	264P370010	DIODE	1N4148
D 911	264P488080	DIODE	RD15FB3
D 943	264P374020	DIODE	IN4003ID
D 951	264P358070	DIODE	RU 4AM
D 952	264P358070	DIODE	RU 4AM
D 953	264P358070	DIODE	RU 4AM

[25] : CT – 25B2FSM [29] : CT – 29B2FSM

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
D 954	264P358070	DIODE	RU 4AM	
D 955	264P377010	DIODE	BYW95B	
D 957	264P377010	DIODE	BYW95B	
D 958	264P370010	DIODE	1N4148	
D 959	264P370010	DIODE	1N4148	
D 960	264P370010	DIODE	1N4148	
D 961	264P370010	DIODE	1N4148	
D 962	264P370010	DIODE	1N4148	
D 963	264P370010	DIODE	1N4148	
D 964	264P370010	DIODE	1N4148	
		OTHER SEMICONDUCTORS		
RP901	265P047050	POSITIVE THERMISTOR	PTH BG 180M290	
		FILTERS		
CF3000	299P141020	CERAMIC RESONATOR		
CF3001	296P071020	CERAMIC FILTER		
CF701	299P118040	CERAMIC RESONATOR	CST4.00MGW	
		COILS		
⚠	409B041070	DEGAUSSING COIL		[25]
⚠	409P564030	DEGAUSSING COIL		[29]
L 101	321C031090	RF COIL	33μH-K	
L 201	325C162030	PEAKING COIL	68μH-K	
L 202	325C120090	PEAKING COIL	4.7μH-K	
L 204	325C121070	PEAKING COIL	22μH-K	
L 2J0	325C120010	PEAKING COIL	1μH-M	
L 2J1	325C120010	PEAKING COIL	1μH-M	
L 2J2	325C120010	PEAKING COIL	1μH-M	
L 3J0	325C120070	PEAKING COIL	3.3μH-K	
L 3J1	325C120070	PEAKING COIL	3.3μH-K	
L 3J2	325C120070	PEAKING COIL	3.3μH-K	
L 3J3	325C120070	PEAKING COIL	3.3μH-K	
L 3J4	325C120070	PEAKING COIL	3.3μH-K	
L 3J5	325C120070	PEAKING COIL	3.3μH-K	
L 3J6	325C120070	PEAKING COIL	3.3μH-K	
L 3J7	325C120070	PEAKING COIL	3.3μH-K	
L 3J8	325C120070	PEAKING COIL	3.3μH-K	
L 3J9	325C120070	PEAKING COIL	3.3μH-K	
L 3Y1	325C121030	PEAKING COIL	10μH-K	
L 3Y2	325C121030	PEAKING COIL	10μH-K	
L 3Y3	325C121030	PEAKING COIL	10μH-K	
L 3Y4	325C120070	PEAKING COIL	3.3μH-K	
L 3Y5	325C120070	PEAKING COIL	3.3μH-K	
L 3000	327P074010	SIF COIL	5.5/6.0MHz	
L 3002	325C110010	PEAKING COIL	1.0μH-K	
L 451	411P001070	FERRITE LEAD	BF60T	
L 551	321C030010	RF COIL	1μH-K	
L 552	409P408010	PCC COIL		
L 553	409P407010	BRIDGE COIL		
L 554	333P032010	H-LIN. COIL		[25]
L 554	333P012090	H-LIN. COIL		[29]
L 555	409P006080	FILTER COIL	6800μH-J	
L 556	411D009020	FERRITE CORE FILTER		
L 701	409P699010	OSCILLATOR COIL		

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
L 702	325C110010	PEAKING COIL	1.0μH-K	
L 705	411P001070	FERRITE LEAD	BF60T	
L 706	411P001070	FERRITE LEAD	BF60T	
L 707	411P001070	FERRITE LEAD	BF60T	
L 7701	325C121050	PEAKING COIL	15μH-K	
L 7703	321C031040	RF COIL	10μH-K	
L 901	411P001070	FERRITE LEAD	BF60T	
L 902	411P001070	FERRITE LEAD	BF60T	
L 903	411P001070	FERRITE LEAD	BF60T	
L 904	321C030050	RF COIL	2.2μH-K	
L 951	325D059060	PEAKING COIL	390μH-K	
L 953	409P674020	FILTER COIL		
L 954	409P674010	FILTER COIL		
L 991	351P011020	LINE FILTER		
L 992	351P047020	LINE FILTER	Z85555TA	
L 994	351P047020	LINE FILTER	Z85555TA	
		TRANSFORMERS		
T 4000	350P442010	DYNAMIC	59491/95	[29]
T 4001	350P443010	N/S	59492/95	[29]
T 4002	350P444010	GULLWING	59493/95	[29]
T 551	336P009010	H. DRIVE		[25]
T 551	336P009030	H. DRIVE		[29]
⚠ T 552	334P196010	FLYBACK		[25]
⚠ T 552	334P193050	FLYBACK		[29]
⚠ T 901	350P510010	POWER		
⚠ T 902	336P023010	DRIVE	POWER	
		VARIABLE RESISTORS		
VR4000	127C080090	VR-SEMIFIXED	1/5W B20KΩ-M	[29]
VR4002	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M	[29]
VR4003	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M	[29]
VR4004	127C081020	VR-SEMIFIXED	1/5W B100KΩ-M	[29]
		RESISTORS		
⚠ R 363	103P398040	FUSE	1/2W 2.2Ω-J	
⚠ R 364	103P398040	FUSE	1/2W 2.2Ω-J	
⚠ R 3S1	103P370010	FUSE	1/4W 10Ω-J	
⚠ R 3T5	103P398040	FUSE	1/2W 2.2Ω-J	
⚠ R 3T6	103P398040	FUSE	1/2W 2.2Ω-J	
⚠ R 3028	103P379010	FUSE	1/4W 8.2Ω-J	
⚠ R 4036	103P390010	FUSE	1/2W 10Ω-J	[29]
⚠ R 4064	109P052050	FUSE	1/4W 6.8Ω-J	[29]
⚠ R 553	103P398040	FUSE	1/2W 2.2Ω-J	
R 554	102P243050	CEMENT METAL	5W 6.8KΩ-K	
R 557	102P229010	CEMENT WIRE	10W 8.2KΩ-K/J	[25]
R 557	102P228080	CEMENT WIRE	10W 4.7Ω-K/J	[29]
⚠ R 558	103P397090	FUSE	1/2W 0.82Ω-J	
⚠ R 559	103P397090	FUSE	1/2W 0.82Ω-J	
⚠ R 564	103P442020	FUSE METAL	1W 560Ω-K/J	
⚠ R 614	103P370010	FUSE	1/4W 10Ω-J	
⚠ R 671	103P438020	FUSE METAL	2W 1.5Ω-K/J	[25]
⚠ R 671	103P438000	FUSE METAL	2W 1.0Ω-K/J	[29]
⚠ R 675	103P372050	FUSE	1/4W 1KΩ-J	
⚠ R 676	103P372050	FUSE	1/4W 1KΩ-J	

[25] : CT – 25B2FSM [29] : CT – 29B2FSM

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
⚠ R 677	103P372050	FUSE	1/4W 1KΩ-J	
R 901	109D075030	CEMENT WIRE	10W 4.7Ω-K	
R 906	109D075050	CEMENT WIRE	10W 820Ω-J	
⚠ R 976	103P397090	FUSE	1/2W 0.82Ω-J	
		CAPACITORS AND TRIMMERS		
C 455	189P081050	C-M-PP	200V 0.1μF-J	
C 4012	189P078040	C-M-PLASTIC-PP	200V 0.068μF-J	[29]
C 558	189P081040	C-M-PLASTIC-PP	200V 0.68μF-J	[25]
C 558	189P071080	C-M-PLASTIC-PP	200V 0.47μF-J	[29]
C 559	189P071080	C-M-PLASTIC-PP	200V 0.47μF-J	[25]
C 559	189P078020	C-M-PLASTIC-PP	200V 0.82μF-J	[29]
C 564	189P081050	C-M-PP	200V 0.1μF-J	
C 904	185D056050	ELECTROLYTIC-C	H400V 330μF-M	
⚠ C 910	189P094020	AC CERAMIC	ACT4K E3300pF-M	
VC7701	202P109030	TRIMMER CAPACITOR	5.5pF-30pF	
		SWITCHES		
S 2J1	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7Y3	432P085070	KEY BOARD SWITCH	6KYE L=8.35	
S 8A1	439C031010	LEAF SWITCH		
⚠ S 991	432P076010	PUSH SWITCH	2-1 AC250V 5A L18	
		MISCELLANEOUS		
⚠	449C081010	CRT SOCKET		
⚠ F 991	283D047040	FUSE	2A-T	
IP101	295P268050	TUNER HF PACK		
J 2J1	449C102010	SOCKET DIN MINI	4P	
J 2J2	451C058010	CONNECTOR	21P	
J 2J3	451C058010	CONNECTOR	21P	
J 2P1	440C181010	JACK BOARD	PINX3 & DINX1	
J 3Y1	451C082040	MICROPHONE JACK		
⚠ K 901	287P049030	POWER RELAY	DJ12D-0(M)-L	
X 601	285P142010	CRYSTAL RESONATOR	17.734MHz	
X 602	285P143010	CRYSTAL RESONATOR	14.318MHz	
X 7701	285P062020	CRYSTAL RESONATOR	13.875MHz	
X 7702	285P064020	CRYSTAL RESONATOR	6.000MHz	
X 7704	285P064020	CRYSTAL RESONATOR	6.000MHz	
⚠ Z 551	299P087060	SURGE PROTECTOR	PRF 2000	
Z 701	939P226020	PREAMP UNIT	SBX160-45	
⚠ Z 800	299P087010	SURGE PROTECTOR	PRF 630	
⚠ Z 952	299P087080	SURGE PROTECTOR	PRF 3150	
⚠ Z 953	299P087080	SURGE PROTECTOR	PRF 3150	
⚠ Z 954	299P132010	SURGE PROTECTOR	PRF 5000	
⚠ Z 956	299P132010	SURGE PROTECTOR	PRF 5000	
		PRINTED CIRCUIT BOARD ASSY'S		
⚠	920D336050	AV PCB ASSY		[25]
⚠	920D336060	AV PCB ASSY		[29]
⚠	920D362050	CONTROL PCB ASSY		[25]
⚠	920D362060	CONTROL PCB ASSY		[29]
⚠	930C457001	CRT PCB ASSY		[25]
⚠	930C457002	CRT PCB ASSY		[29]
⚠	920D354050	JACK PCB ASSY		[25]
⚠	920D354060	JACK PCB ASSY		[29]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
⚠	920A385007	MAIN PCB ASSY		[25]
⚠	920A385008	MAIN PCB ASSY		[29]
⚠	930C474001	PCC PCB ASSY		[29]
⚠	920D335050	POWER SUB PCB ASSY		[25]
⚠	920D335060	POWER SUB PCB ASSY		[29]
⚠	930C458002	SOUND PCB ASSY		
⚠	920D337050	SW/AT PCB ASSY		[25]
⚠	920D337060	SW/AT PCB ASSY		[29]
⚠	930C456003	TEXT PCB ASSY		
		MECHANICAL PARTS		
	761B207020	BASE ASSY		[25]
	761B207010	BASE ASSY		[29]
	669D220020	SCREW	3X8 46LA005	
	669D220030	SCREW	3X10 46LA005	
	669D221030	SCREW	4X10 46LA005	
	669D221040	SCREW	4X12 46LA005	
	669D221060	SCREW	4X16 46LA005	
	669D221080	SCREW	4X25 46LA005	
	669D212010	SCREW	3X12	
	669D212040	SCREW	3X10	
	589B006010	GEAR UNIT		
		COSMETIC PARTS		
⚠	246C022070	AC POWER CORD		
⚠	700C132030	BACK COVER		[25]
⚠	700C135050	BACK COVER		[29]
	700A526040	FRONT CABINET		[25]
	701D084020	FRONT CABINET		[29]
	641D173010	CLIP	(A40R)	
	702C839020	DOOR (R)		[25]
	702C839030	DOOR (L)		[25]
	702C839040	DOOR (R)		[29]
	702C839050	DOOR (L)		[29]
	761C437010	DOOR CATCH		
	704C375090	POWER KNOB		[25]
	704C376020	POWER KNOB		[29]
	802D238010	SPACER		[25]
	761A084030	TERMINAL BOARD		
J 3J1	451C114010	PIN JACK(2P)	RED+WHITE	
SP391	926P015010	SPEAKER SYSTEM		
SP392	926P015010	SPEAKER SYSTEM		
SP393	926P010030	SYSTEM SPEAKER 3D		
		PACKING PARTS AND ACCESSORY		
	803B671010	PACKING CUSHION		[25]
	803A281010	PACKING CUSHION		[29]
⚠	872C028060	INSTRUCTION BOOK		
	801C064050	PACKING CASE		[25]
	801C075050	PACKING CASE		[29]
	831D222030	PACKING BAG		
	831D262010	PACKING BAG	460X230X0.005	
	829D138020	PACKING SHEET	1900X375X.5	[25]
	829D138050	PACKING SHEET	CT-2964STX	[29]
⚠	939P403030	REMOTE HAND UNIT		

VUE ECLATEE

POSITION DES VIS

POSITION DES VIS POUR LA FIXATION DU TUBE

<29" UNIQUEMENT>

BOBINE DG
MASSE
BOBINE DG

ATTENTION (TROU ANODE)

PARTIE METALLIQUE SUR LE HAUT

APPLIQUER DE LA GRAISSE SILICONE SUR CETTE SURFACE NETTOYEE. INSERER IMMEDIATEMENT L'ANODE DANS LE TUBE CATHODIQUE.

<29″>

<25″>

29" UNIQUEMENT

<29" UNIQUEMENT>

BLOQUER A L'AIDE D'UN VERNIS

COTE OUVERT

COTE BOUCLE

COTE OUVERT

MASSE COTE BOUCLE

<29" UNIQUEMENT>

<25" UNIQUEMENT>

PAS DE BOUCLE 20~30mm

CONNEXION DES CABLES DG

	BROCHE N°	CONNEXION
DG	1 (ROUGE)	SP391(+)
	2 (BLANC)	SP391(-)
	1 (ROUGE)	SP392(+)
	2 (BLANC)	SP391(-)

LABEL DE CONTROLE

VERS PCB CONTROLE

LA PARTIE SUPERIEURE EST REPEREE PAR LA REFERENCE

APPLIQUER UNE QUANTITE DE GRAISSE SILICONE A L'ENDROIT OU L'EMBASE TOUCHE LA CAISSE ET LE STOPPER.

<29″>

<25″>

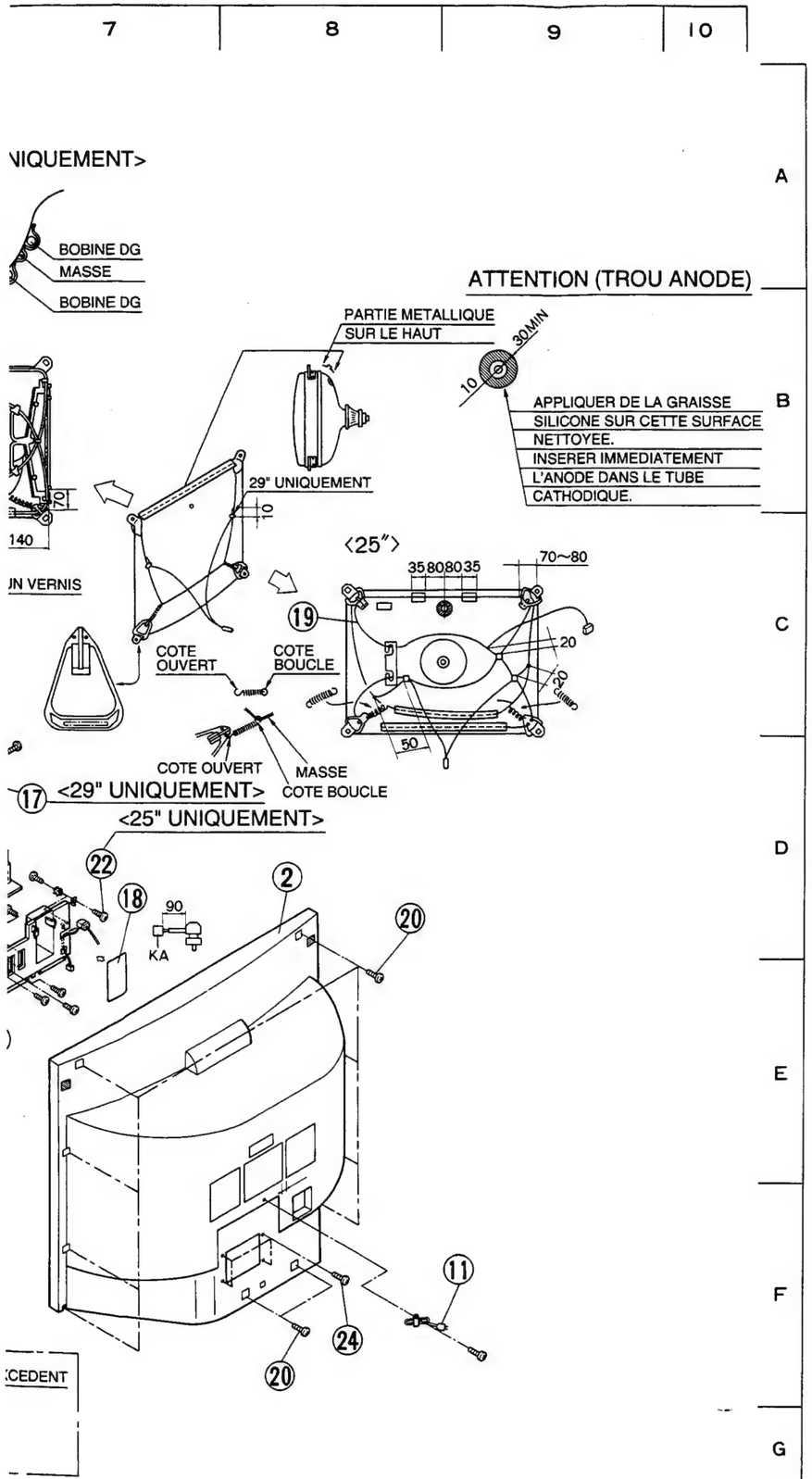
ORANGE
ROUGE
MARRON
VERT

DY

MARRON
JAUNE
BLEU
ROUG

COUPER L'EXCEDENT

CONNEXION DES CABLES



PARTS LIST

In order to expedite delivery of replacement part orders.

Specify : 1. Model number/Serial number
2. Part number and Description
3. Quantity

Unless full information is supplied, delay in execution of orders will result..

⚠ : Critical Components

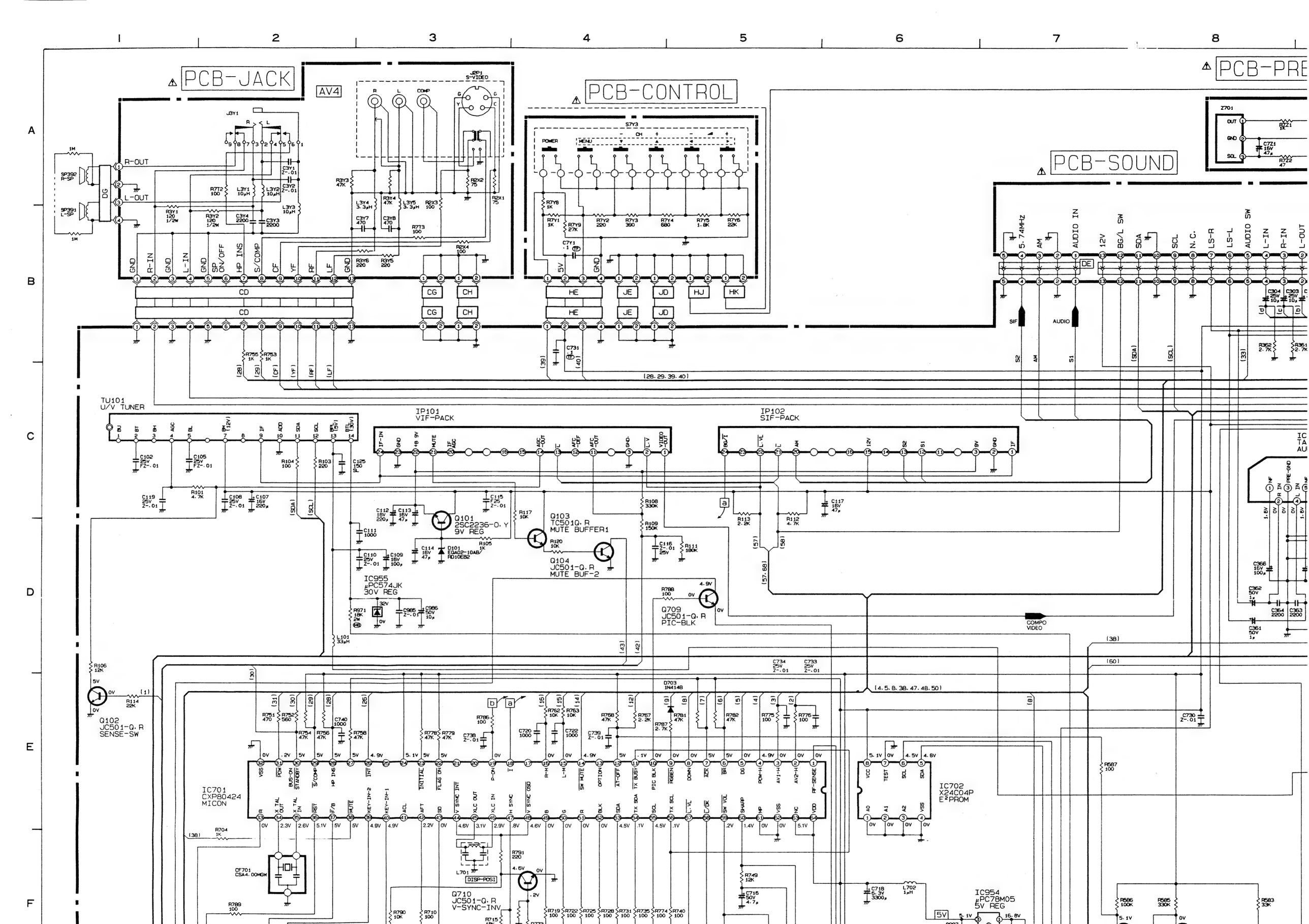
ABBREVIATION

[25] : CT – 25B2FSM

[29] : CT – 29B2FSM

SYMBOL NO.	PARTS NO.	ADDRESS		PARTS NAME		
1	700A526040	B-3		CABINET FRONT		[25]
1	701D084020	B-3		CABINET FRONT		[29]
⚠ 2	700C132030	D-8		BACK COVER		[25]
⚠ 2	700C135050	D-8		BACK COVER		[29]
3	702C839030	B-1		DOOR(L)		[25]
3	702C839050	B-1		DOOR(L)		[29]
4	702C839020	B-2		DOOR(R)		[25]
4	702C839040	B-2		DOOR(R)		[29]
5	926P015010	D-1		SPEAKER SYSTEM(SP392)		
6	926P015010	A-5		SPEAKER SYSTEM(SP391)		
7	926P010030	E-5		SYSTEM SPEAKER 3D(SP393)		
8	761B207020	E-2		BASE ASSY		[25]
8	761B207010	E-2		BASE ASSY		[29]
⚠ 9	255P930010	C-4		CATHODE RAY TUBE	A59ECY13X01	[25]
⚠ 9	255P919020	C-4		CATHODE RAY TUBE	A68EAU27X01	[29]
10	761A084030	E-7		TERMINAL BOARD		
⚠11	246C022070	E-9		AC POWER CORD		
⚠12	920A385007	D-7		MAIN PCB ASSY		[25]
⚠12	920A385008	D-7		MAIN PCB ASSY		[29]
⚠13	930C456003	D-6		TEXT PCB ASSY		
⚠14	930C458002	E-6		SOUND PCB ASSY		
⚠15	920D336050	E-6		AV PCB ASSY		[25]
⚠15	920D336060	E-6		AV PCB ASSY		[29]
⚠16	920D354050	D-4		JACK PCB ASSY		[25]
⚠16	920D354060	D-4		JACK PCB ASSY		[29]
⚠17	930C474001	C-5	D-7	PCC PCB ASSY		[29]
⚠18	920D335050	D-7		POWER SUB PCB ASSY		[25]
⚠18	920D335060	D-7		POWER SUB PCB ASSY		[29]
⚠19	409B041070	C-8		DEGAUSSING COIL		[25]
⚠19	409P564030	B-6		DEGAUSSING COIL		[29]
20	669D221060	E-8	F-8	SCREW	4X16 SCREW-TB(10P)	
21	669D221080	C-4		SCREW	4X25(10P)	
22	669D221030	C-4	D-7	SCREW	4X10	
		D-6				
23	669D212040	D-2	D-5	SCREW	3X10 SCREW-TB(10P)	
		F-3	G-2			
24	669D212010	B-2	F-8	SCREW	3X12 (10P)	

SYMBOL NO.	PARTS NO.	ADDRESS		PARTS NAME	
25	704C375090	B-1		POWER KNOB	[25]
25	704C376020	B-1		POWER KNOB	[29]
26	589B006010	C-3		GEAR UNIT	
⚠27	920D337050	D-2		SW/AT PCB ASSY	[25]
⚠27	920D337060	D-2		SW/AT PCB ASSY	[29]
⚠28	930C457001	D-5		CRT PCB ASSY	[25]
⚠28	930C457002	D-5		CRT PCB ASSY	[29]
⚠29	920D362050	D-3		CONTROL PCB ASSY	[25]
⚠29	920D362060	D-3		CONTROL PCB ASSY	[29]



PCB-JACK
AV4
PCB-CONTROL
PCB-SOUND
PCB-PRE
TU101
U/V TUNER
IP101
VIF-PACK
IP102
SIF-PACK
Q101
2SC2236-O, Y
9V REG
Q103
TC501Q, R
MUTE BUFFER1
Q104
JC501-Q, R
MUTE BUF-2
IC955
μPC574JK
30V REG
Q709
JC501-Q, R
PIC-BLK
Q102
JC501-Q, R
SENSE-SW
IC701
CXP80424
MICON
IC702
X24C04P
E²PROM
Q710
JC501-Q, R
V-SYNC-INV
IC954
μPC78M05
5V REG
COMPO
VIDEO

PCB-POWER-SUB

IC704 MN1380-T RESET

Q710 JC501-Q.R V-SYNC-INV

Q702 JC501-Q.R B

Q703 JC501-Q.R G

Q704 JC501-Q.R R

Q705 JC501-Q.R BLK

Q706 2SC3065-F /2SC3065-G SDA-SW

Q707 2SC3065-F /2SC3065-G SCL-SW

Q708 JC501-Q.R DOWN DET

IC954 μPC78M05 5V REG

Q554 JC501-Q.R POWER-OFF -SW-2

Q553 JC501-Q.R POWER-OFF-SW-1

5V

12V

AC230V 50HZ Neutral (Blue) Live (Brown)

F991 T2A

S991

K901

RP901

ADG-COIL

Q903 JC501-Q.R ADG-SW

IC901 TEA2261 SLAVE-REG -OUT

Q902 JC501-Q.R SLOW-START

Q901 2SD1887 REG-OUT

T901

T902

IC951 SI-3120C 12V REG

IC952 SI-3050C 5V REG

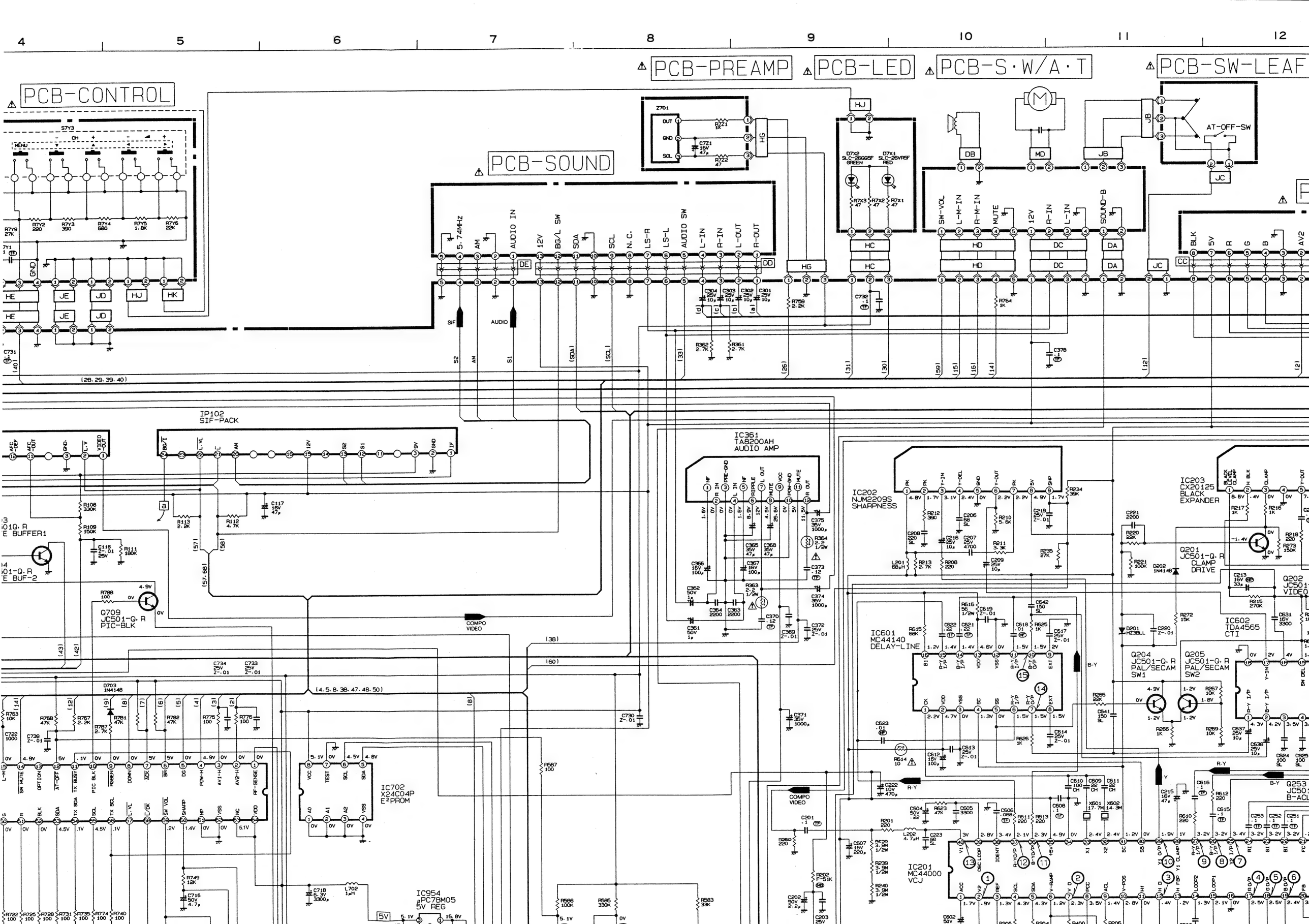
IC950 TEA5170 MASTER-REG-OUT

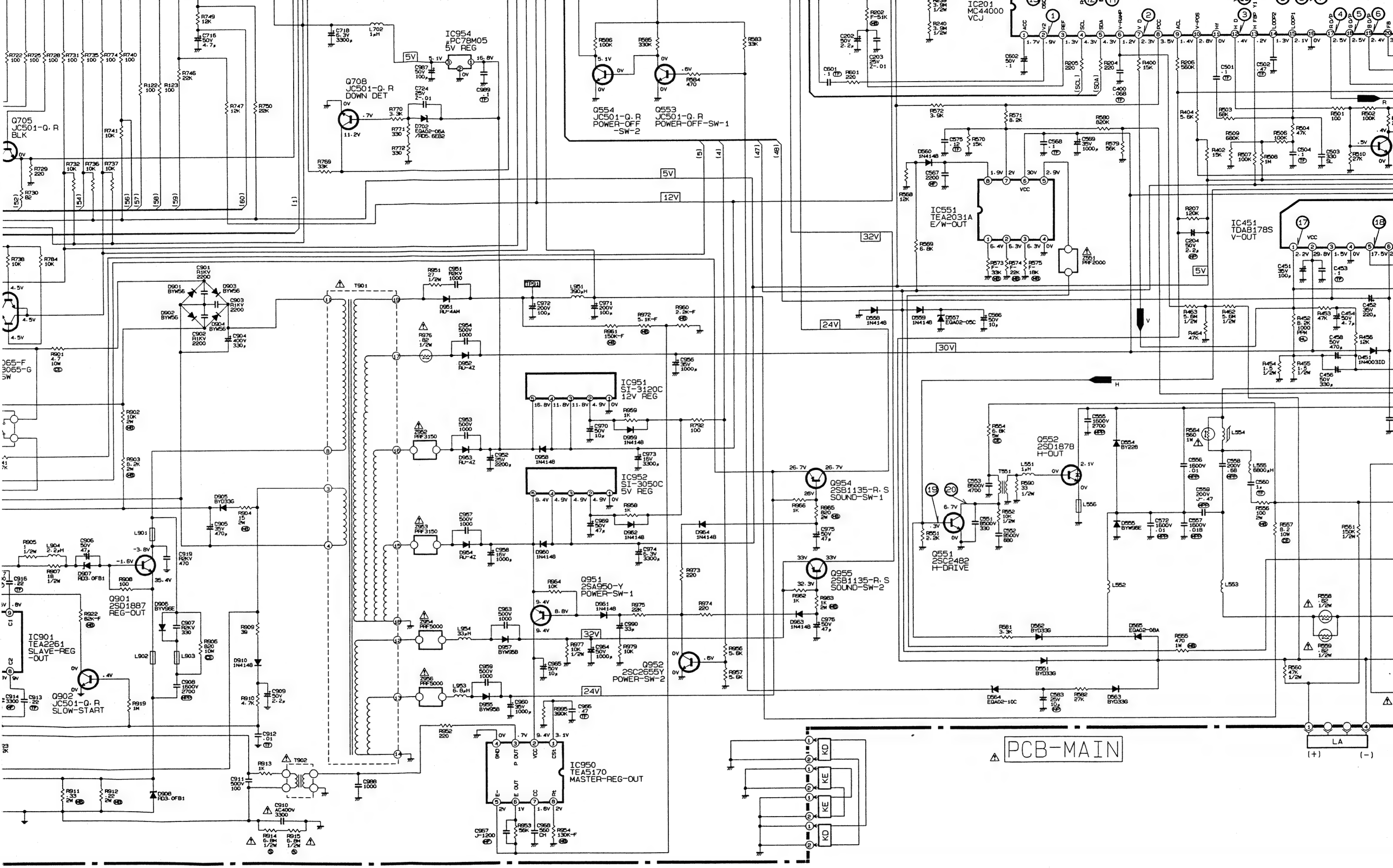
Q951 2SA950-Y POWER-SW-1

Q952 2SC2655Y POWER-SW-2

32V

24V


4
5
6
7
8
9
10
11
12
PCB-CONTROL
PCB-PREAMP
PCB-LED
PCB-S·W/A·T
PCB-SW-LEAF
PCB-SOUND
S7Y3
MENU
CH
R7Y2 220
R7Y3 390
R7Y4 680
R7Y5 1.8K
R7Y6 22K
R7Y9 27K
GND
HE
JE
JD
HJ
HK
C731
(40)
(28. 29. 39. 40)
Z701
OUT
GND
SOL
RZ1 1K
C7Z1 16V 47μ
RZ2 47
HG
HJ
D7X2 SLC-266GSF GREEN
D7X1 SLC-26VRSF RED
R7X3 47
R7X2 47
R7X1 47
HC
DB
MD
JB
AT-OFF-SW
JC
SW-VOL
L-M-IN
R-M-IN
MUTE
12V
R-IN
L-IN
SOUND-B
HD
DC
DA
BLK
5V
R
G
B
AV2
CC
5.74MHz
AM
AUDIO IN
12V
BG/L SW
SDA
SCL
N.C.
LS-R
LS-L
AUDIO SW
L-IN
R-IN
L-OUT
R-OUT
DE
DD
C304 25V 10μ
C303 25V 10μ
C302 25V 10μ
C301 25V 10μ
R759 2.2K
C732 .1
R764 1K
C378 .1
R362 2.7K
R361 2.7K
SIF
AUDIO
S2
AM
S1
(SDA)
(SCL)
(33)
(26)
(31)
(30)
(59)
(15)
(16)
(14)
(12)
(2)
IP102
SIF-PACK
AFC-DEF
AFC-OUT
GND
L·V
VIDEO-OUT
BG/L
L·VL
L
AM
12V
S2
S1
5V
GND
IF
R108 330K
R109 150K
C116 .01 25V
R111 180K
R113 2.9K
R112 4.7K
C117 16V 47μ
(57)
(58)
(57. 58)
E BUFFER1
E BUF-2
R788 100
Q709
JC501-Q. R
PIC-BLK
COMPO VIDEO
(38)
(60)
(43)
(42)
(4. 5. 8. 38. 47. 48. 50)
C734 25V .01
C733 25V .01
D703 1N4148
R763 10K
R768 47K
R767 2.2K
R781 47K
R787 2.7K
R782 47K
R775 100
R776 100
C722 1000
C739 .01
C730 .01
R567 100
C371 35V 1000μ
SW MUTE
OPTION
AT-OFF
TX BUSY
PIC BLK
RGBEN
DOWN
ADJ
BR
DG
PON-H
AV1-H
AV2-H
RF-SENSE
IC702
X24C04P
E²PROM
R749 12K
C716 50V 4.7μ
C718 6.3V 3300μ
L702 1μH
R722 100
R725 100
R728 100
R731 100
R735 100
R774 100
R740 100
IC954
μPC78M05
5V REG
5V
R566 100K
R595 330K
R583 33K
IC361
TA8200AH
AUDIO AMP
NF
IN
PRE-GND
L IN
RIPPLE
L OUT
VCC
POW-GND
MUTE
R OUT
C375 35V 1000μ
R364 2.2 1/2W
C373 .12
C374 35V 1000μ
C372 25V .01
C369 .01
C370 .12
R363 2.2 1/2W
C365 35V 47μ
C368 35V 47μ
C366 16V 100μ
C367 16V 100μ
C362 50V 1μ
C364 2200
C363 2200
C361 50V 1μ
IC202
NJM2209S
SHARPNESS
PK
Y-IN
Y-DEL
GND
Y-OUT
5V
SHP
R234 39K
R212 390
R210 5.6K
R211 3.3K
R235 27K
C206 220 SL
C208 220 SL
C216 25V 10μ
C207 25V 4700
C209 25V 10μ
C219 25V .01
L201 68μH
R213 2.7K
R208 220
IC203
CX20125
BLACK EXPANDER
BLACK DET
BLACK CLAMP
H BLK
CLAMP
R217 1K
R216 1K
R218 220
R273 150K
C221 2200
R220 22K
R221 100K
D202 1N4148
Q201
JC501-Q. R
CLAMP DRIVE
C213 16V 33μ
R215 270K
Q202
JC501
VIDEO
D201 H23BLL
C220 .01
R272 15K
IC602
TDA4565
CTI
C531 16V 3300
IC601
MC44140
DELAY-LINE
R615 68K
R616 56 1/2W
C619 .01
C542 150 SL
C622 22
C621 22
C618 .01
R625 1K
C617 25V .01
B-Y
Q204
JC501-Q. R
PAL/SECAM SW1
Q205
JC501-Q. R
PAL/SECAM SW2
R265 22K
R267 10K
R266 1K
R269 10K
C641 150 SL
C523 .01
R614 10
C512 16V 100μ
C513 25V .01
C514 25V .01
R626 1K
C637 25V 10μ
C638 25V 10μ
C524 100 SL
C525 100 SL
R-Y
C222 10V 470μ
COMPO VIDEO
C201 .1
R560 220
R202 1.51K
C202 50V .22
C203 25V .2
C504 50V .22
R623 47K
C505 3300
C506 .068
R611 220
R613 220
C508 .1
X601 17.7M
X602 14.3M
C610 100 CH
C509 22 CH
C611 22 CH
C516 .1
R612 220
C615 .1
C215 16V 47μ
C253 .1
C252 .1
C251 .1
R610 220
R201 220
L202 4.7μH
C223 56 CH
C507 16V 220μ
R238 3.9M 1/2W
R239 3.9M 1/2W
R240 3.9M 1/2W
IC201
MC44000
VCJ
OSC LOOP
IDENT
B-Y O/P
R-Y O/P
Y1 CLAMP
X1
X2
SC
SDS
R1
G1
B1
FC
ACC
V2
REF
SCL
SDA
Y-RAMP
V D
PCC
ACL
Y-POS
H D
H FB
L LOOP2
L LOOP1
R O/P
G O/P
B O/P
FB
C602 50V
R204
R205
R400



IC954
μPC78M05
5V REG
Q708
JC501-Q.R
DOWN DET
Q705
JC501-Q.R
BLK
Q554
JC501-Q.R
POWER-OFF
-SW-2
Q553
JC501-Q.R
POWER-OFF-SW-1
IC201
MC44000
VCJ
IC551
TEA2031A
E/W-OUT
IC451
TDA8178S
V-OUT
IC951
SI-3120C
12V REG
IC952
SI-3050C
5V REG
Q954
2SB1135-R.S
SOUND-SW-1
Q955
2SB1135-R.S
SOUND-SW-2
Q552
2SD1878
H-OUT
Q551
2SC2482
H-DRIVE
Q951
2SA950-Y
POWER-SW-1
Q952
2SC2655Y
POWER-SW-2
Q901
2SD1887
REG-OUT
IC901
TEA2261
SLAVE-REG
-OUT
Q902
JC501-Q.R
SLOW-START
IC950
TEA5170
MASTER-REG-OUT
PCB-MAIN

SCHEMATIC DIAGRAM MODEL : CT-25B2FSM

PCB-SW-LEAF

PCB-AV

PCB-TEXT

PCB-CRT

IC203 CX20125 BLACK EXPANDER

IC602 TDA4565 CTI

IC251 AN5862K RGB-SW

Q201 JC501-Q, R CLAMP DRIVE

Q202 JC501-Q, R VIDEO DRIVE

Q203 2SC3065 F, G ACL AMP

Q204 JC501-Q, R PAL/SECAM SW1

Q205 JC501-Q, R PAL/SECAM SW2

Q253 JC501-Q, R B-ACL

Q251 JC501-Q, R G-ACL

Q252 JC501-Q, R R-ACL

Q254 JC501-Q, R ACL DRIVE

Q301 2SC2236-O, Y AV-REC

Q255 2SC2058S-Q OSD PRIORITY SW

Q651 2SC2688-L, M R-OUT-1

Q652 2SC2688-L, M B-OUT-1

Q655 2SC2058S-Q R-AMP

Q658 2SC2482 R-OUT-2

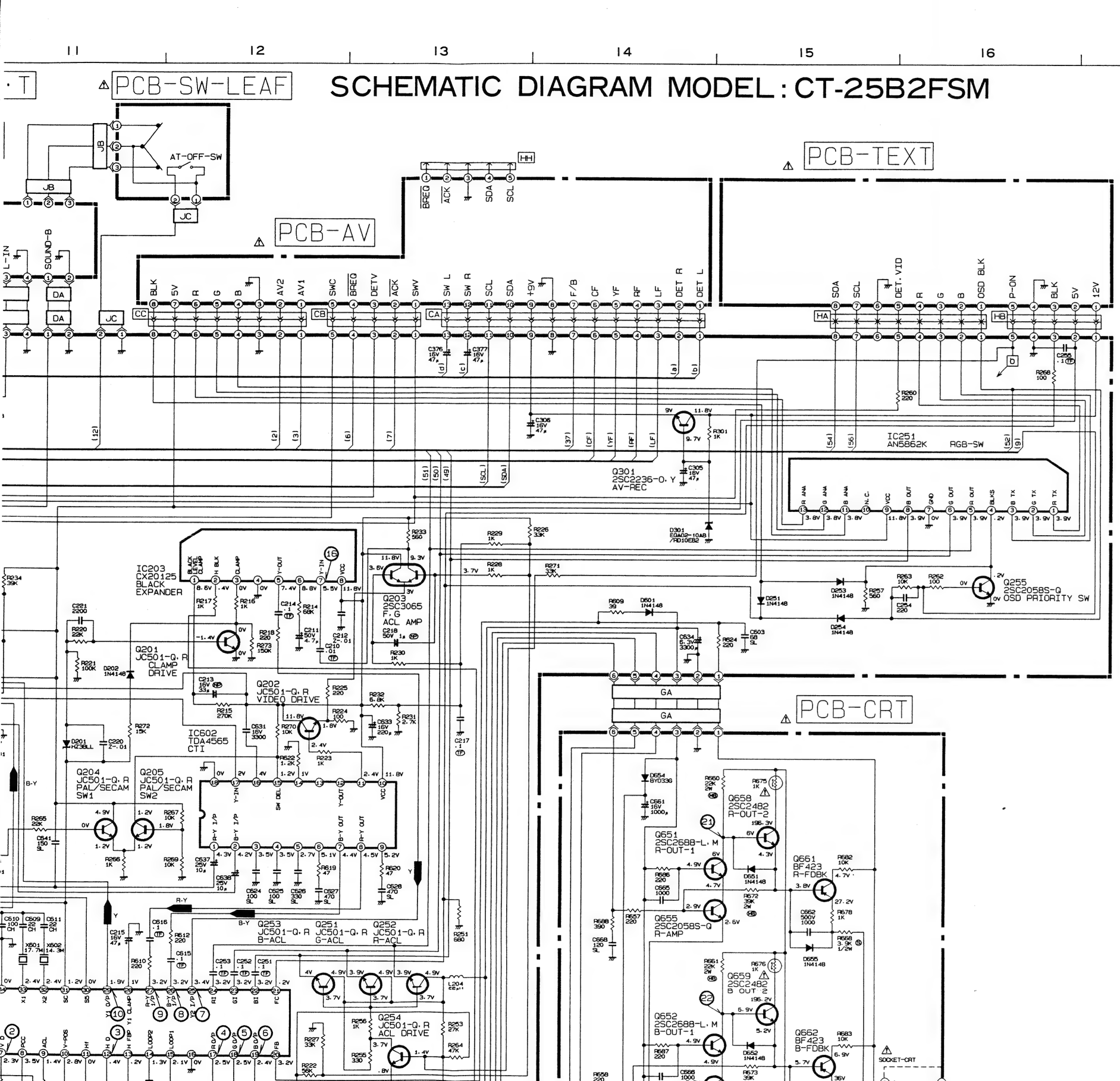
Q659 2SC2482 B OUT 2

Q661 BF423 R-FDBK

Q662 BF423 B-FDBK

AT-OFF-SW

SOCKET-CRT



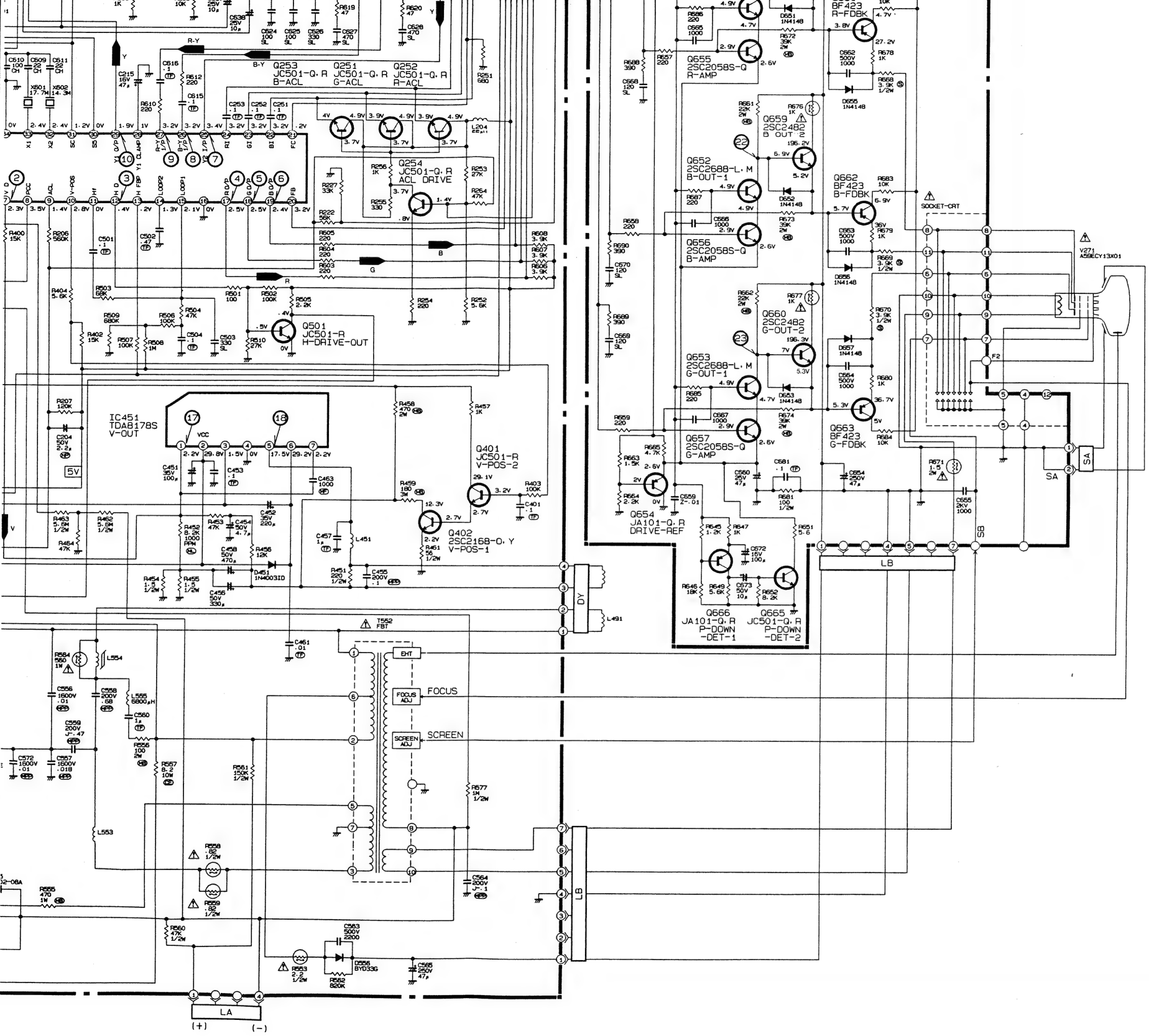
SERVICING PRECAUTION

SYMBOLS INDICATE COMPONENTS HAVING SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY AND PERFORMANCE. THERFORE REPLACEMENT OF ANY SAFETY PARTS SHOULD BE IDENTICAL IN VALUE AND CHARACTERISTICS. FOR ACCURACY OF THE REPLACEMENT REFER TO THE PARTS LIST OF SERVICE MANUAL.

DON'T DEGRADE THE SAFETY OF THE RECEIVERS THROUGH IMPROPER SERVICING.

NOTE 1:

1. The unit of resistance is "ohm" with no symbol.
   Accordingly, K = 1000 ohms
   M = 1000K ohms.
2. The wattage of resistors, if not specifically designated, is less than 1/4 watt.
3. Resistors, if not specifically designated, are carbon resistors.
4. The marks of resistors are as follows:
   - (CE) : Cemented resistor
   - (MB) : Metal oxide film resistor (type B)
   - (MPC) : Metel plate cement resistor



NOTE 1:

1. The unit of resistance is "ohm" with no symbol.
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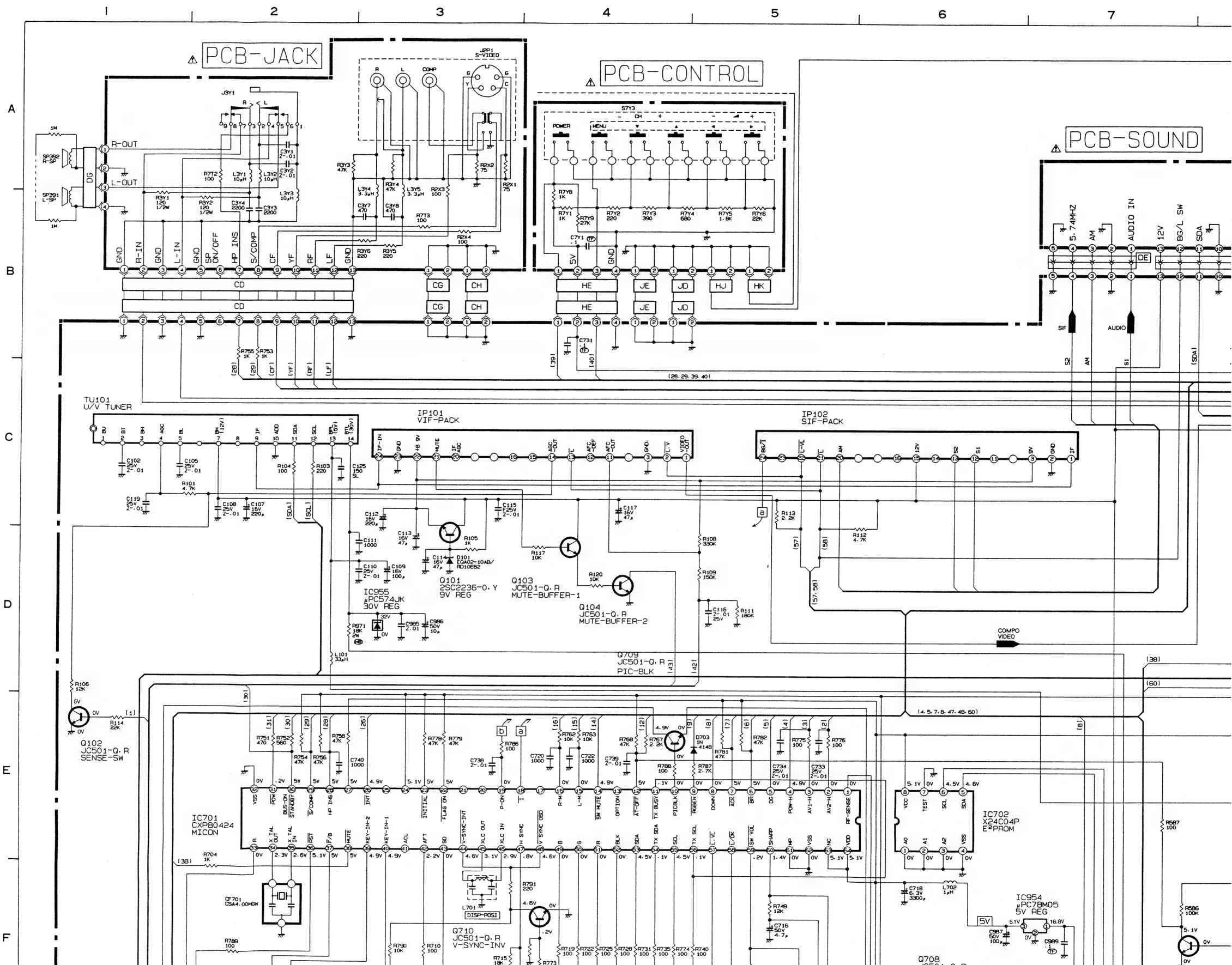
   M = 1000K ohms.
2. The wattage of resistors, if not specifically designated, is less than 1/4 watt.
3. Resistors, if not specifically designated, are carbon resistors.
4. The marks of resistors are as follows:
   - (CE) : Cemented resistor
   - (MB) : Metal oxide film resistor (type B)
   - (MPC) : Metel plate cement resistor.
   - (ML) : Metal linear resistor.
   - (S) : Fixed composition resistor
   - (W) : Wire wound resistor
   - (M) : Metal film resistor
5. The tolerance of resistor value, if not specifically designated, is: ±5%, K = ±10% M = ±20%
6. The unit of capacitance, if not specifically designated, is;
   a) μF, for numbers less than 1
   b) PF, for numbers more than 1
7. Capacitors, if not specifically designated are Ceramic capacitors except electrolytic capacitors.
8. The marks of capacitors are as follows:
   - (ALM) : Aluminus electrolytic capacitor
   - (MF) : Polyester capacitor
   - (PP) : Polypropylene film capacitor
   - (TANT) : Tantalum capacitor
   - (TF) : Twin film capacitor.
   - (MF.PP) : Polyester polypropylene film capacitor.
   - (MPP) : Metallize plastic film capacitor.
   - (NP) : Non polarized electrolytic capacitor.
   - (PS) : Styrol capacitor.
   - (SC) : Semi conductor capacitor.
   - ⧧ : Electrolytic capacitor
9. The DC working voltage of capacitor, if not specifically designated is: 50V
10. The tolerance of capacitor value, if not specifically designated is:
    ±10% for polyester capacitor
    ±5% for ceramic capacitor
    and J = ±5% K = ±10% M = ±20% P = $^{+100\%}_{0\%}$
    C = ±0.25PF D = ±0.5PF F = ±1PF Z = $^{+80\%}_{-20\%}$ N = ±30%

SPECIFIC SYMBOL

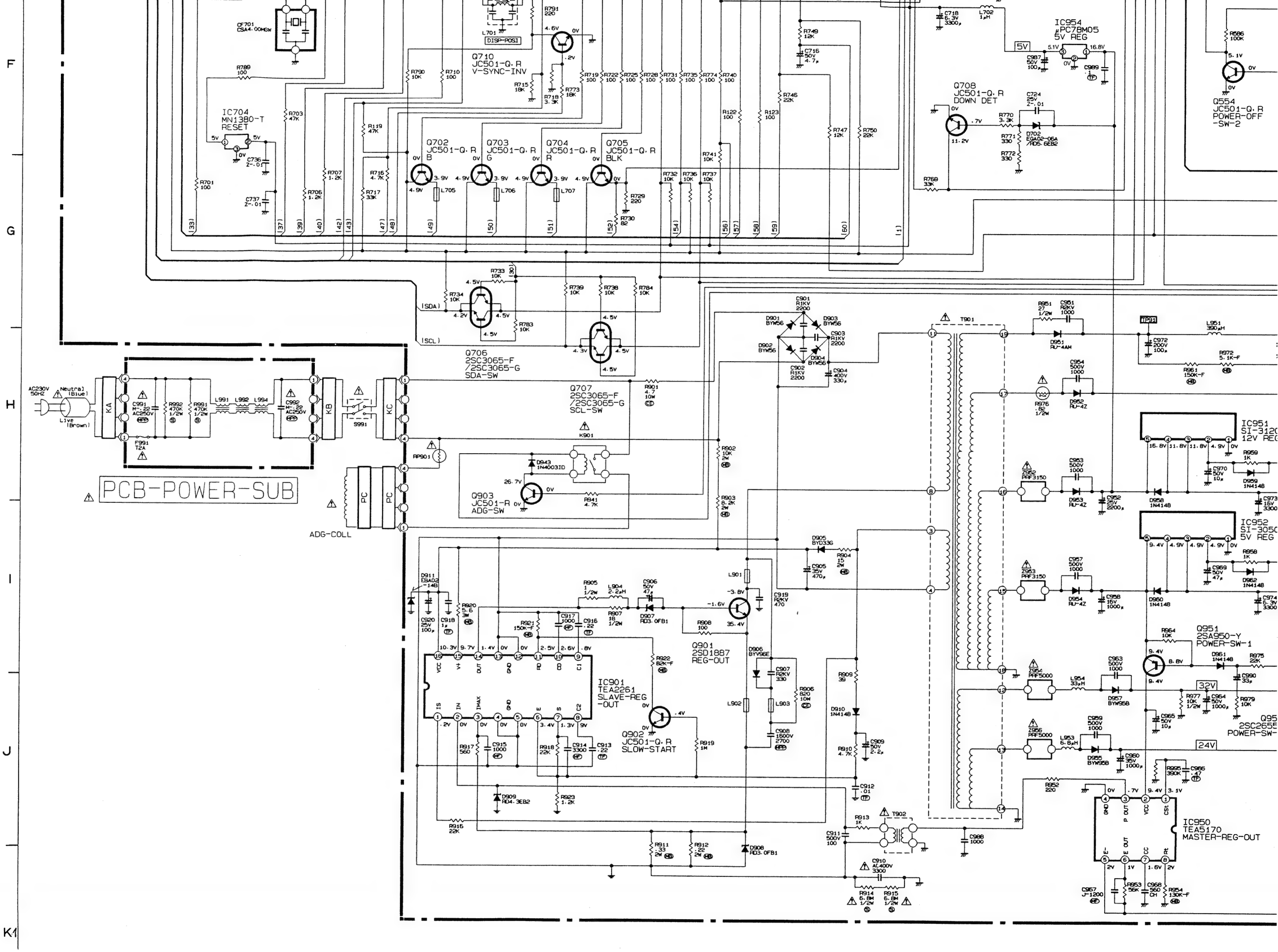
Zener Diode	Varistor
Varicap	Crystal unit
Posistor	Air Gap
Thermistor	Part (resistor) attached on the copper-foil side of PCB
Fusible Resistor	Caramic filter

NOTE 2:

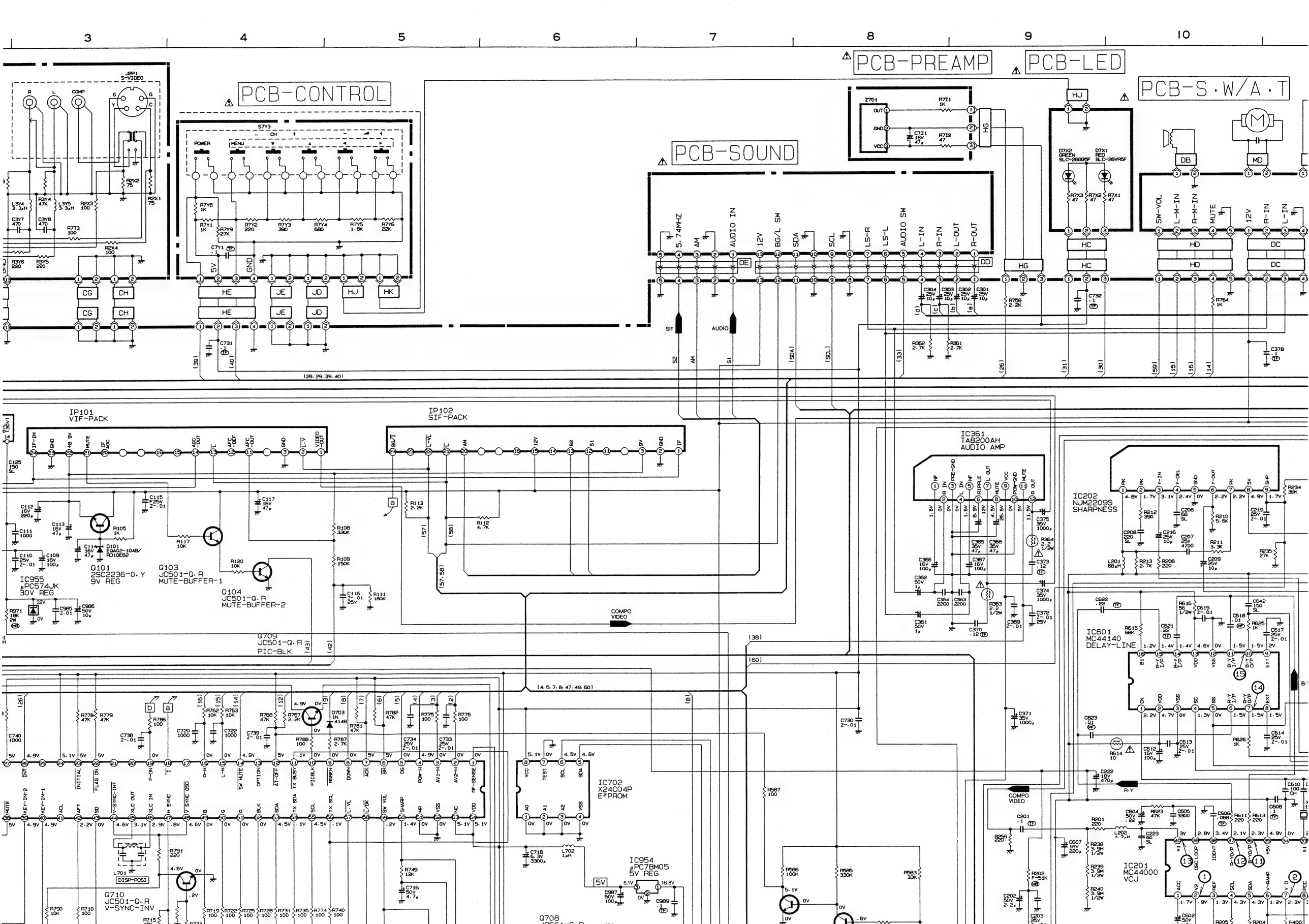
1. DC voltages were measured from points indicated to the circuit ground with a high-Z voltmeter.
2. Waveforms were taken with offset PAL colour bar signal.
3. This is a basic schematic diagram. Some sets may be subject to modification according to engineering improvement.

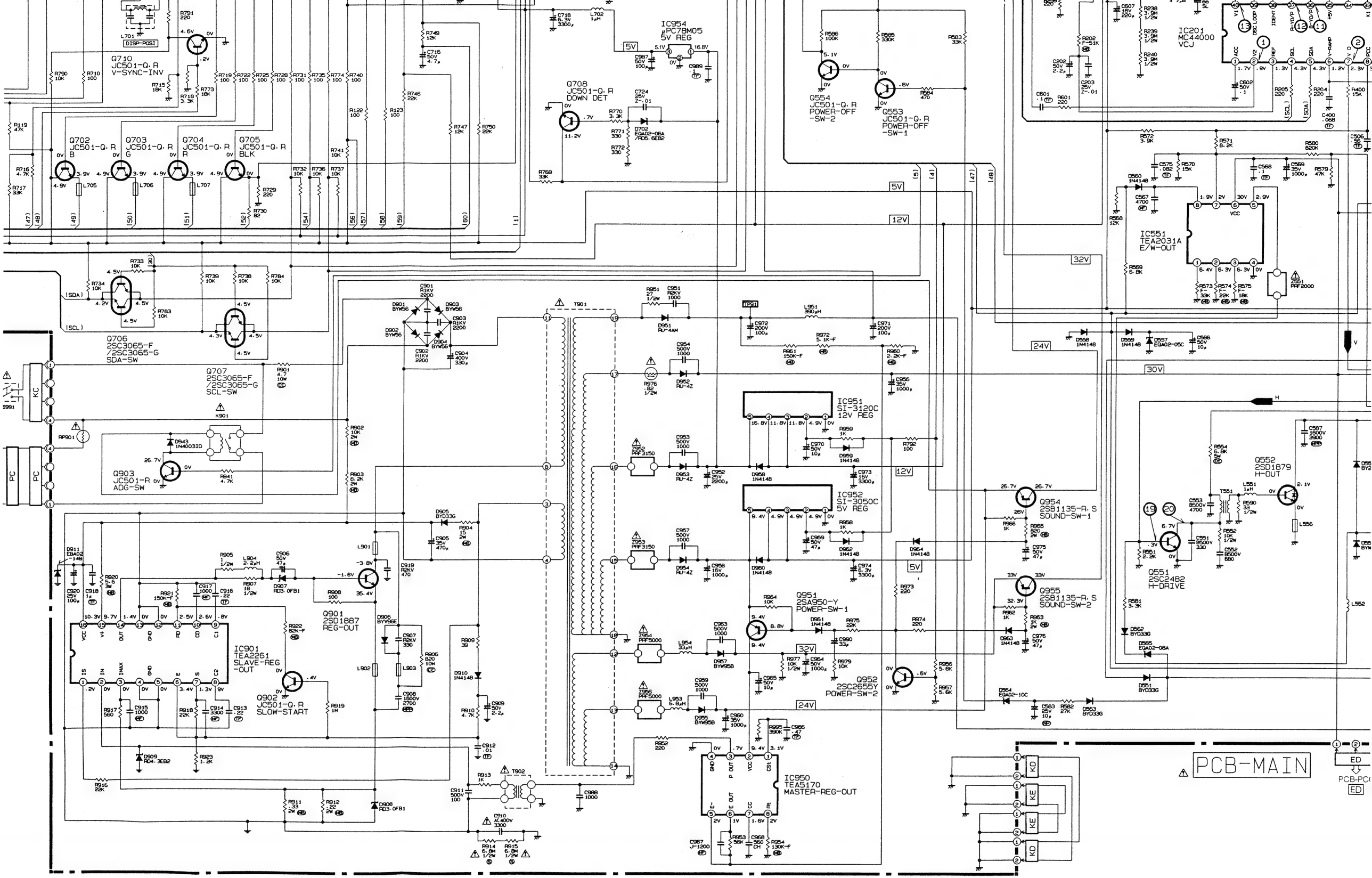


PCB-JACK
PCB-CONTROL
PCB-SOUND
TU101
U/V TUNER
IP101
VIF-PACK
IP102
SIF-PACK
IC955
μPC574JK
30V REG
Q101
2SC2236-0.Y
9V REG
Q103
JC501-Q.R
MUTE-BUFFER-1
Q104
JC501-Q.R
MUTE-BUFFER-2
Q709
JC501-Q.R
PIC-BLK
Q102
JC501-Q.R
SENSE-SW
IC701
CXP80424
MICON
IC702
X24C04P
E²PROM
IC954
μPC78M05
5V REG
Q710
JC501-Q.R
V-SYNC-INV
Q708
COMPO
VIDEO



PCB-POWER-SUB
ADG-COLL
IC704 MN1380-T RESET
Q710 JC501-Q.R V-SYNC-INV
Q702 JC501-Q.R B
Q703 JC501-Q.R G
Q704 JC501-Q.R R
Q705 JC501-Q.R BLK
Q708 JC501-Q.R DOWN DET
IC954 μPC78M05 5V REG
Q554 JC501-Q.R POWER-OFF -SW-2
Q706 2SC3065-F /2SC3065-G SDA-SW
Q707 2SC3065-F /2SC3065-G SCL-SW
Q903 JC501-R ADG-SW
IC901 TEA2261 SLAVE-REG -OUT
Q902 JC501-Q.R SLOW-START
Q901 2SD1887 REG-OUT
IC951 SI-3120 12V REG
IC952 SI-3050 5V REG
Q951 2SA950-Y POWER-SW-1
IC950 TEA5170 MASTER-REG-OUT


3
4
5
6
7
8
9
10
PCB-CONTROL
PCB-PREAMP
PCB-LED
PCB-S·W/A·T
PCB-SOUND
CP1 S-VIDEO
R
L
COMP
G
Y
C
S7Y3
POWER
MENU
CH
R7Y8 1K
R7Y1 1K
R7Y9 27K
R7Y2 220
R7Y3 390
R7Y4 680
R7Y5 1.8K
R7Y6 22K
C7Y1 .1
5V
GND
R2X2 75
R2X1 75
R2X4 100
R2X3 100
L3Y4 3.3μH
L3Y5 3.3μH
R3Y4 47K
C3Y7 470
C3Y8 470
R7Y3 100
R3Y6 220
R3Y5 220
CG
CH
HE
JE
JD
HJ
HK
C731
(39)
(40)
(28.29.39.40)
Z701
OUT
GND
VCC
R7Z1 1K
C7Z1 16V 47μ
R7Z2 47
HG
HJ
D7X2 GREEN SLC-26GGSF
D7X1 RED SLC-26VRSF
R7X3 47
R7X2 47
R7X1 47
HC
DB
MD
M
HD
DC
SW-VOL
L-M-IN
R-M-IN
MUTE
12V
R-IN
L-IN
5.74MHZ
AM
AUDIO IN
BG/L SW
SDA
SCL
LS-R
LS-L
AUDIO SW
L-IN
R-IN
L-OUT
R-OUT
DE
DD
C304 25V 10μ
C303 25V 10μ
C302 25V 10μ
C301 25V 10μ
(d)
(c)
(b)
(a)
R759 2.2K
C732 .1
R764 1K
C378
R362 2.7K
R361 2.7K
SIF
AUDIO
S2
AM
S1
(SDA)
(SCL)
(33)
(26)
(31)
(30)
(59)
(15)
(16)
(14)
IP101
VIF-PACK
IF-IN
GND
+B 9V
MUTE
IF AGC
AGC OUT
TL
AFC DEF
AFC OUT
GND
L.V
VIDEO OUT
IP102
SIF-PACK
BG/T
L-VL
TL
AM
12V
S2
S1
5V
GND
IF
C150 .1
C112 16V 220μ
C115 F25V Z-.01
C113 16V 47μ
C111 1000
C114 16V 47μ
R105 1K
D101 EQA02-10AB/ RD10EB2
Q101 2SC2236-O.Y 9V REG
R117 10K
Q103 JC501-Q.R MUTE-BUFFER-1
R120 10K
Q104 JC501-Q.R MUTE-BUFFER-2
C110 25V Z-.01
C109 16V 100μ
IC955 μPC574JK 30V REG
32V
0V
R971 18K 2W
C985 Z.01
C986 50V 10μ
C117 16V 47μ
R108 330K
R109 150K
C116 Z-.01 25V
R111 180K
R113 2.2K
R112 4.7K
(57)
(56)
(57.58)
a
COMPO VIDEO
Q709 JC501-Q.R PIC-BLK
(43)
(42)
(38)
(60)
(4.5.7.8.47.48.60)
(8)
R786 100
R778 47K
R779 47K
C740 1000
C738 Z-.01
C720 1000
R762 10K
R763 10K
C722 1000
R768 47K
R767 2.2K
C739 Z-.01
D703 1N 4148
R781 47K
R788 100
R787 2.7K
R782 47K
C734 25V Z-.01
R775 100
C733 25V Z-.01
R776 100
INT
INITIAL
FLAG ON
P-ON
T
P-M
L-M
SW MUTE
OPTION
AT-OFF
TX BUSY
PICBLK
RGBEN
DOWN
ADJ
BRI
DG
POW-H
AV1-H
AV2-H
RF-SENSE
KEY-IN-2
KEY-IN-1
ACL
APT
SD
V-SYNC-INT
XLC OUT
XLC IN
H SYNC
V SYNC OSD
B
G
R
BLK
SDA
TX SDA
SCL
TX SCL
L.VL
L/DK
SW VOL
SHARP
MP
VSS
NC
VDD
L701 DISP-POSI
R791 220
Q710 JC501-Q.R V-SYNC-INV
R790 10K
R710 100
R719 100
R722 100
R725 100
R728 100
R731 100
R735 100
R774 100
R740 100
R715 2.2K
IC702 X24C04P E²PROM
VCC
TEST
SCL
SDA
A0
A1
A2
VSS
C718 6.3V 3300μ
L702 1μH
IC954 μPC78M05 5V REG
5V
5.1V
16.8V
C987 50V 100μ
C989 .1
0V
Q708
R749 12K
C716 50V 4.7μ
R587 100
R586 100K
R585 330K
R583 33K
C730 Z-.01
C371 35V 1000μ
IC361 TA8200AH AUDIO AMP
NF
R IN
PRE-GND
L IN
RIPPLE
L OUT
VCC
MUTE
POW-GND
R OUT
C375 35V 1000μ
R364 2.2Ω 1/2W
C365 35V 47μ
C358 35V 47μ
C367 16V 100μ
C373 .12
C362 50V 1μ
C364 2200
C363 2200
R363 2.2Ω 1/2W
C369 Z-.01
C372 Z-.01
C361 1μ
C370 .12
C374 35V 1000μ
IC202 NJM2209S SHARPNESS
PK
Y-IN
Y-DEL
GND
Y-OUT
5V
SYP
R234 39K
R212 390
C206 68 SL
R210 5.6K
C208 220 SL
C216 25V 10μ
Q207 25V 4700
R211 3.3K
C219 .01
R235 27K
L201 68μH
R213 2.7K
R208 220
C209 25V 10μ
IC601 MC44140 DELAY-LINE
C622 .22
R615 68K
C621 .22
R615 56 1/2W
C619 Z-.01
C542 150 SL
C618 .01
R625 1K
C617 25V Z-.01
B1
B-Y I/P
R-Y I/P
VDD
VSS
B-Y O/P
R-Y O/P
EXT
CK
SC
SS
C623 .01
R614 10
C512 16V 100μ
C513 25V Z-.01
R626 1K
C514 25V Z-.01
C222 10V 470μ
R-Y
B-Y
C610 100 CH
C608
C201 .1
R659 220
C504 50V .22
R623 47K
C605 3300
C606 .068
R611 220
R613 220
R201 220
L202 4.7μH
C223 68 SL
C607 16V 220μ
R238 3.9Ω 1/2W
R239 3.9Ω 1/2W
R240 3.9Ω 1/2W
IC201 MC44000 VCJ
V1
V2
DSC LOOP
IDENT
R-Y/P
R-Y/D
B-Y/D
B-Y/P
+5V
ACC
REF
SCL
SDA
V-RAMP
PDC
C602 50V
R205
R204
R400
R202 51K
C202 50V 2.2μ
C203 25V



Q710
JC501-Q.R
V-SYNC-INV
Q702
JC501-Q.R
B
Q703
JC501-Q.R
G
Q704
JC501-Q.R
R
Q705
JC501-Q.R
BLK
IC954
μPC78M05
5V REG
Q708
JC501-Q.R
DOWN DET
Q554
JC501-Q.R
POWER-OFF
-SW-2
Q553
JC501-Q.R
POWER-OFF
-SW-1
IC201
MC44000
VCJ
IC551
TEA2031A
E/W-OUT
Q706
2SC3065-F
/2SC3065-G
SDA-SW
Q707
2SC3065-F
/2SC3065-G
SCL-SW
Q903
JC501-R
ADG-SW
IC951
SI-3120C
12V REG
IC952
SI-3050C
5V REG
Q954
2SB1135-R.S
SOUND-SW-1
Q955
2SB1135-R.S
SOUND-SW-2
Q552
2SD1879
H-OUT
Q551
2SC2482
H-DRIVE
Q901
2SD1887
REG-OUT
IC901
TEA2261
SLAVE-REG
-OUT
Q902
JC501-Q.R
SLOW-START
Q951
2SA950-Y
POWER-SW-1
Q952
2SC2655Y
POWER-SW-2
IC950
TEA5170
MASTER-REG-OUT
PCB-MAIN

SCHEMATIC DIAGRAM MODEL : CT-29B2FSM

PCB-S·W/A·T

PCB-SW-LEFT

PCB-AV

PCB-TEXT

PCB-CRT

IC203 CX20125 BLACK EXPANDER

IC602 TDA4565 CTI

IC251 AN5862K RGB-SW

Q201 JC501-Q, R CLAMP DRIVE

Q202 JC501-Q, R VIDEO DRIVE

Q203 2SC3065 F, G ACL AMP

Q204 JC501-Q, R PAL/SECAM SW1

Q205 JC501-Q, R PAL/SECAM SW2

Q253 JC501Q, R B-ACL

Q251 JC501Q, R G-ACL

Q252 JC501Q, R R-ACL

Q301 2SC2236-O, Y AV-REG

Q651 2SC2688-L, M R-OUT-1

Q658 2SC2482 R-OUT-2

Q655 2SC2058S-Q R-AMP

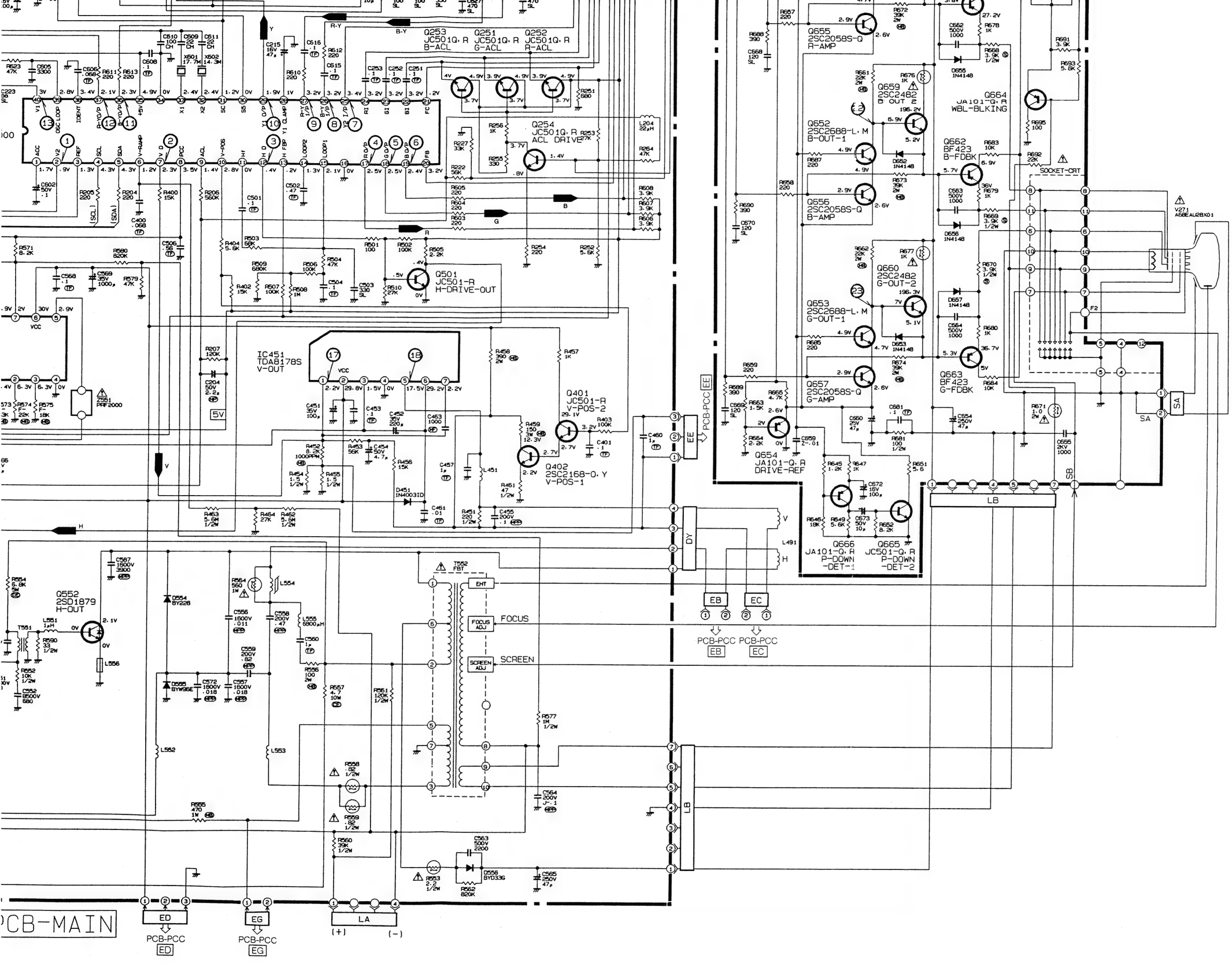
Q659 2SC2482 B-OUT-2

Q661 BF423 R-FDBK

Q664 JA101-Q, R WBL-BLKING

Q255 2SC2058S-Q OSD PRIORITY SW

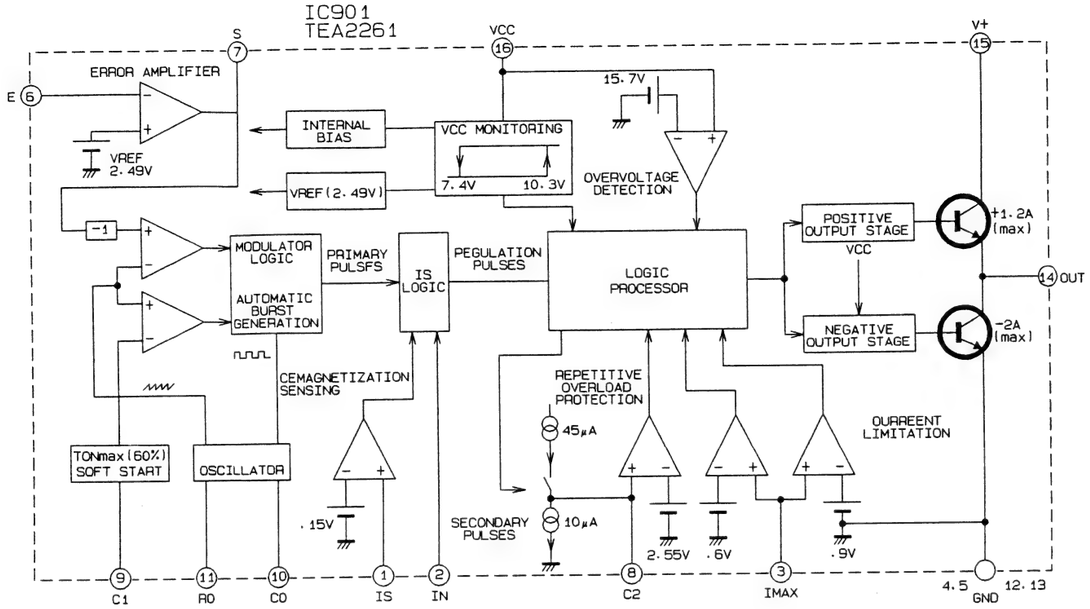
AT-OFF-SW


Q253 JC501Q. R B-ACL
Q251 JC501Q. R G-ACL
Q252 JC501Q. R R-ACL
Q254 JC501Q. R ACL DRIVE
Q501 JC501-R H-DRIVE-OUT
IC451 TDA8178S V-OUT
Q401 JC501-R V-POS-2
Q402 2SC2168-O. Y V-POS-1
Q552 2SD1879 H-OUT
Q655 2SC2058S-Q R-AMP
Q656 2SC2058S-Q B-AMP
Q657 2SC2058S-Q G-AMP
Q654 JA101-Q. R DRIVE-REF
Q659 2SC2482 B-OUT-2
Q652 2SC2688-L. M B-OUT-1
Q660 2SC2482 G-OUT-2
Q653 2SC2688-L. M G-OUT-1
Q664 JA101-Q. R WBL-BLKING
Q662 BF423 B-FDBK
Q663 BF423 G-FDBK
Q666 JA101-Q. R P-DOWN -DET-1
Q665 JC501-Q. R P-DOWN -DET-2
SOCKET-CRT
V271 A56EAU28X01
FOCUS
SCREEN
PCB-PCC [EE]
PCB-PCC [EB]
PCB-PCC [EC]
PCB-PCC [ED]
PCB-PCC [EG]
PCB-MAIN
EB
EC
ED
EG
LA
LB
SA
SB
DY
EHT
FBT
FOCUS ADJ
SCREEN ADJ

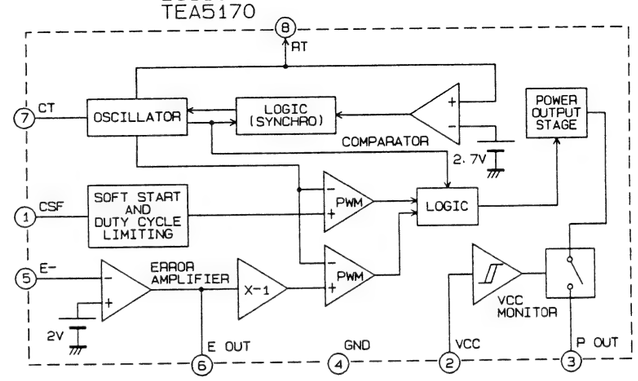
IC BLOCK DIAGRAM

(PCB-MAIN)

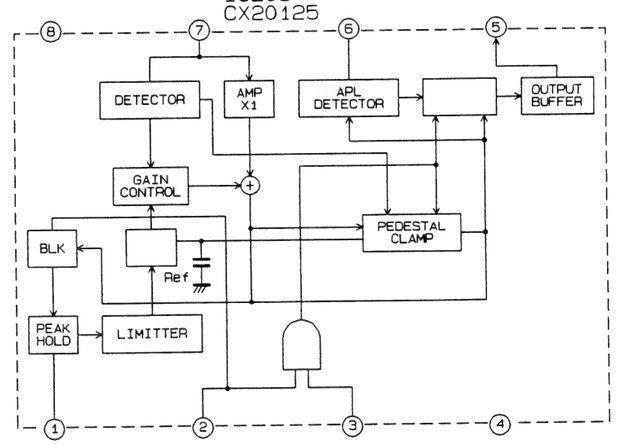
IC901
TEA2261



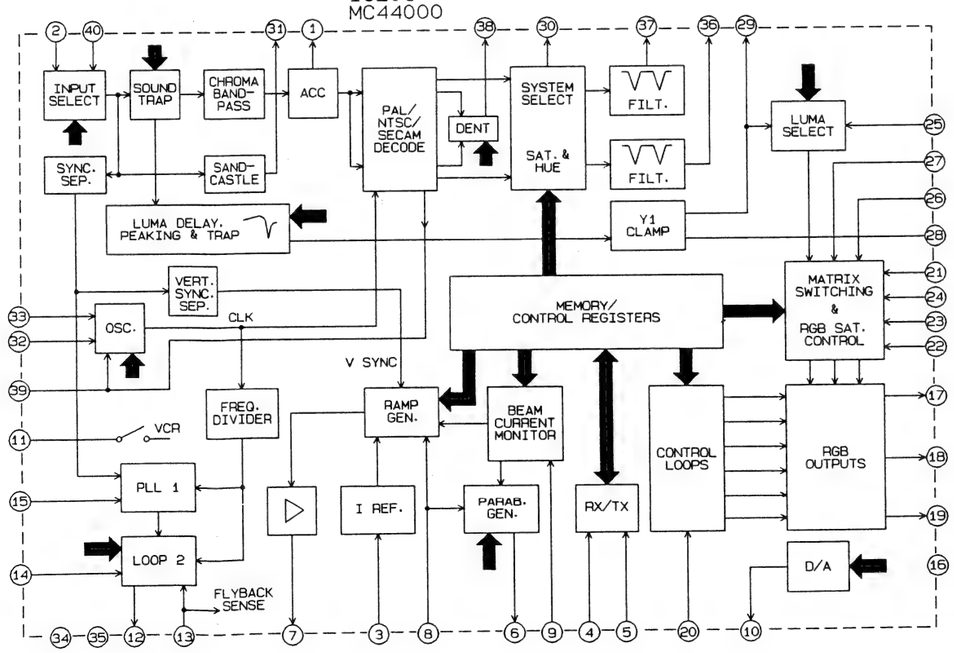
IC950
TEA5170



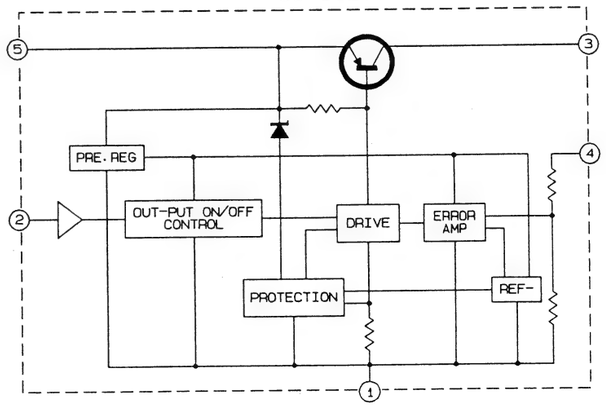
IC203
CX20125



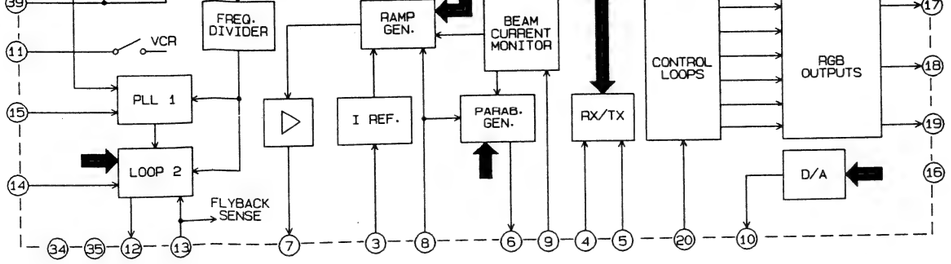
IC201
MC44000

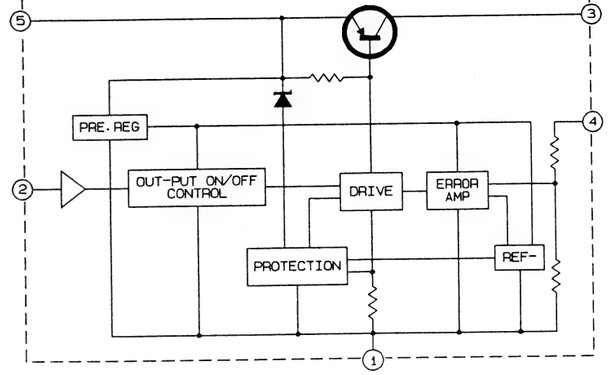


IC951
SI-3120C

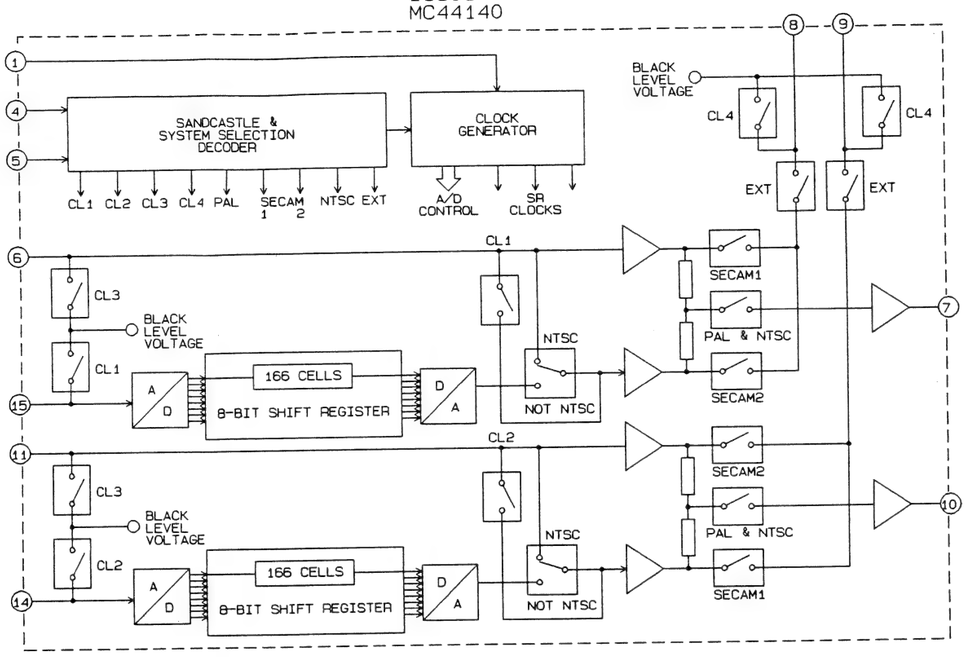


IC601
MC44140

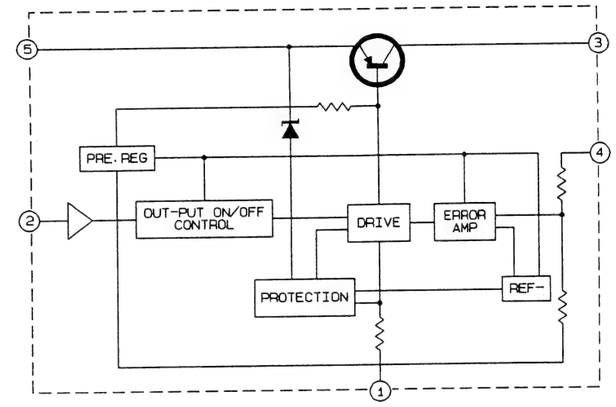




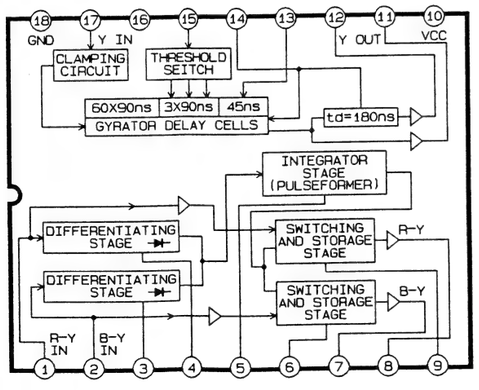
IC601
MC44140



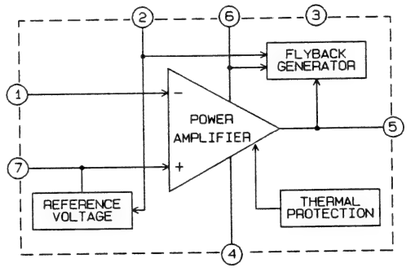
IC952
SI-3050C



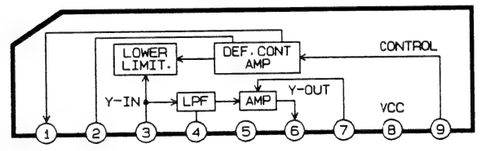
IC602
TDA4565



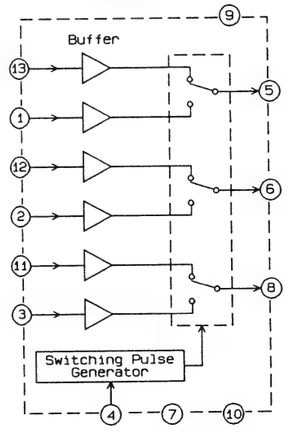
IC451
TDA8178S



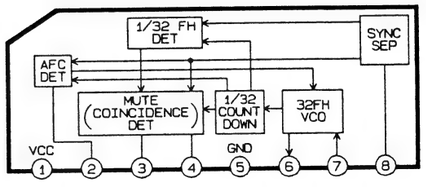
IC202
NJM2209S



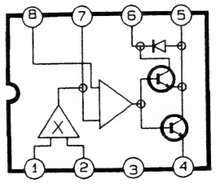
IC251
AN5862K



IC1A1
M51497L

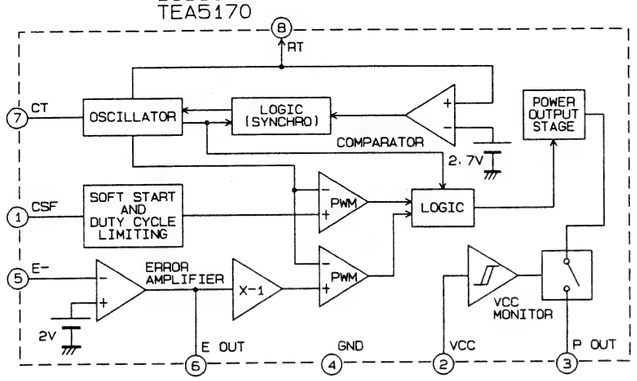


IC551
TEA2031A

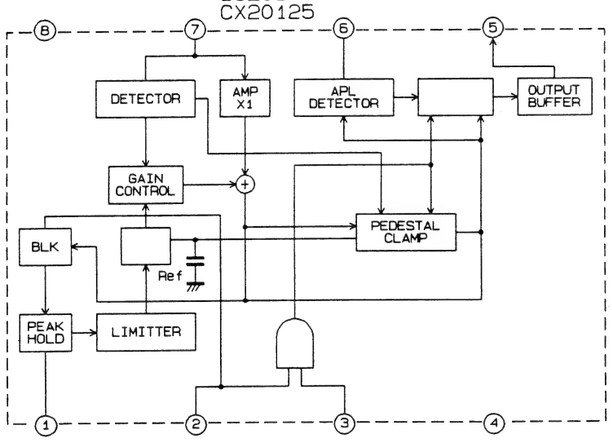


[PCB-S･W/A･T]
[PCB-AV]

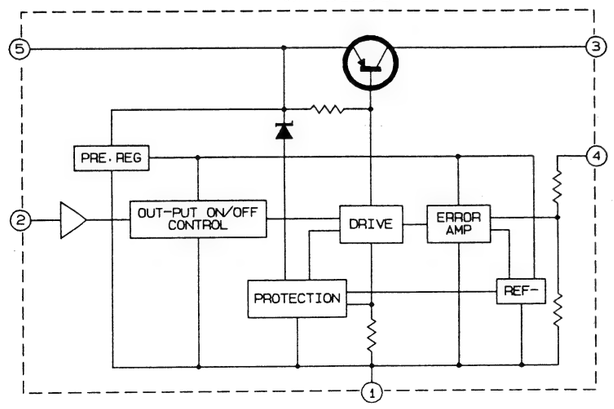
IC950
TEA5170



IC203
CX20125

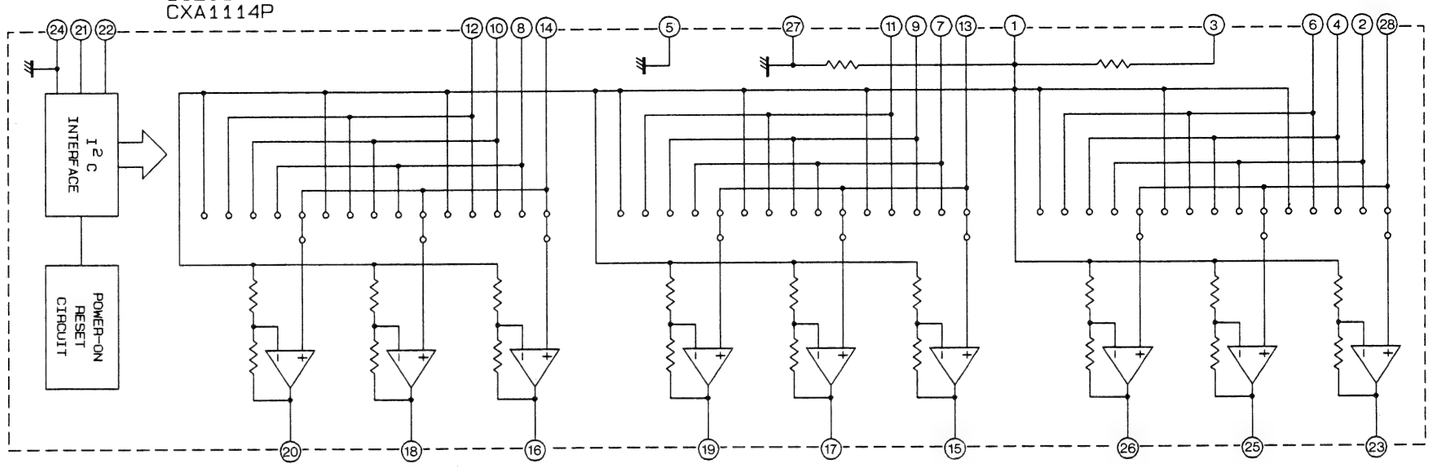


IC951
SI-3120C



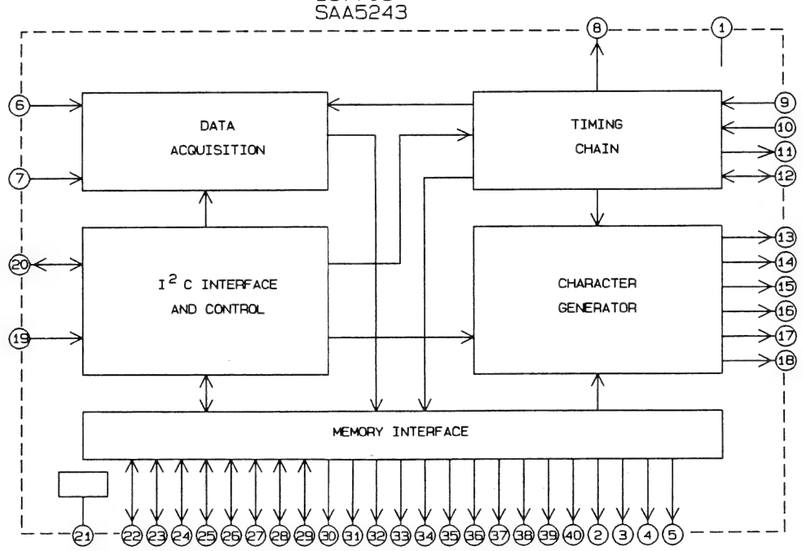
IC952
SI-3050C

IC2J1
CXA1114P

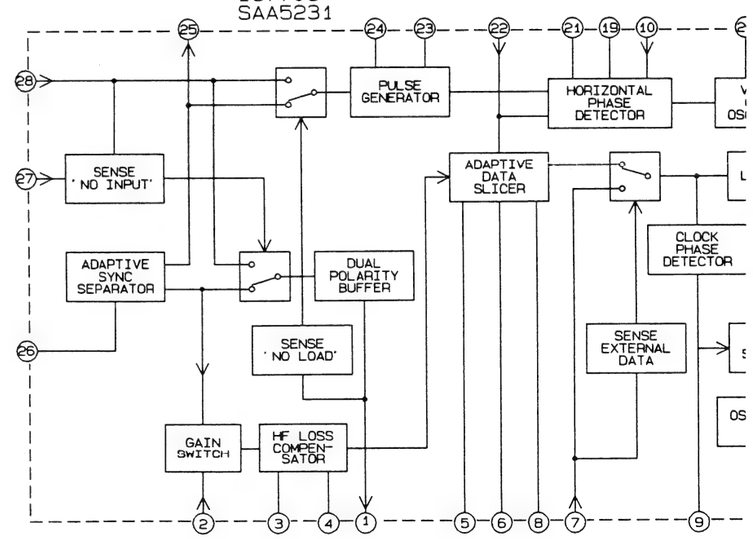


[PCB-SOUND]
[PCB-TEXT]

IC7706
SAA5243

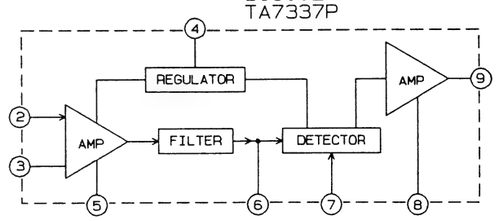


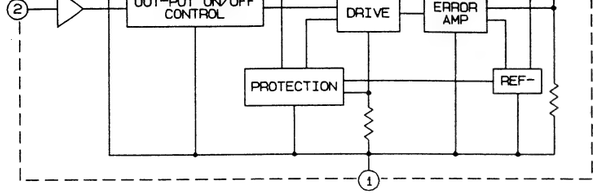
IC7705
SAA5231



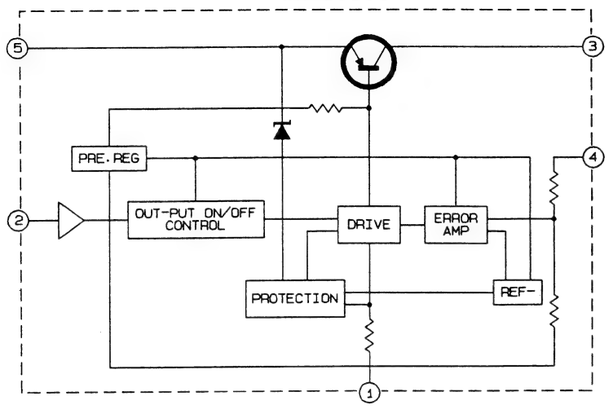
IC3001
MC44130

IC3002
TA7337P

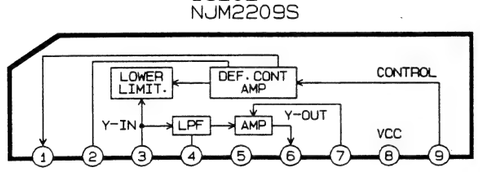




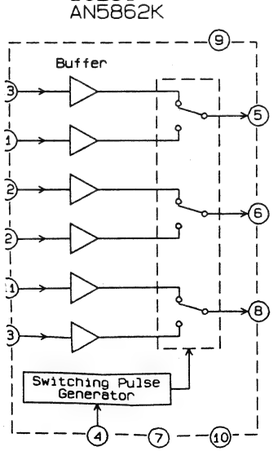
IC952
SI-3050C



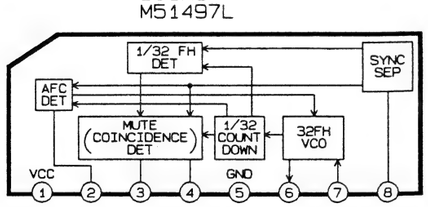
IC202
NJM2209S



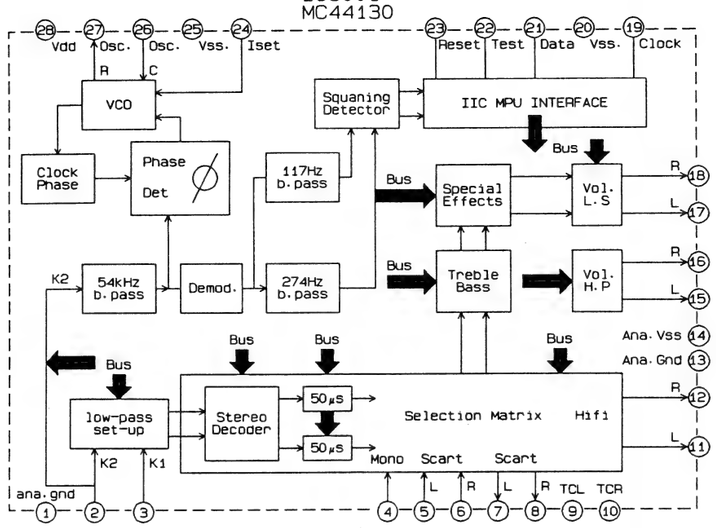
IC251
AN5862K



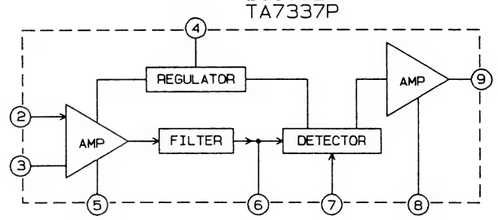
IC1A1
M51497L



IC3001
MC44130



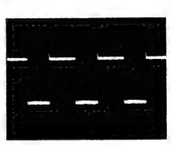
IC3002
TA7337P

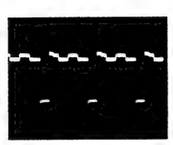


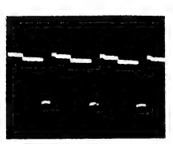
CHASSIS WAVEFORMS

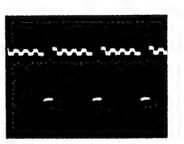
①2.0Vp-p(H)

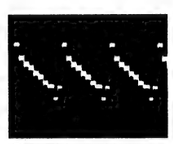
②1.8Vp-p(V)


③0.7Vp-p(H)

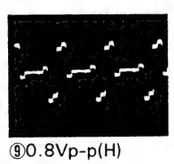

④2.3Vp-p(H)

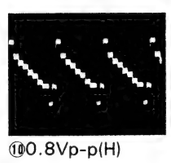

⑤2.2Vp-p(H)

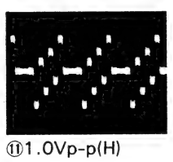

⑥2.3Vp-p(H)

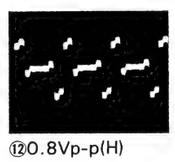

⑦0.7Vp-p(H)

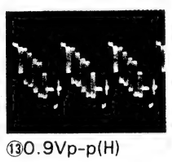
⑧0.9Vp

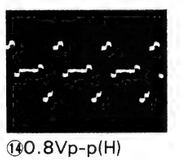

⑨0.8Vp-p(H)

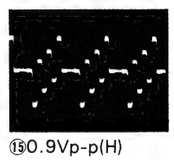

⑩0.8Vp-p(H)


⑪1.0Vp-p(H)

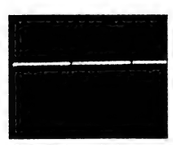

⑫0.8Vp-p(H)

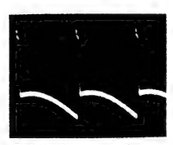

⑬0.9Vp-p(H)

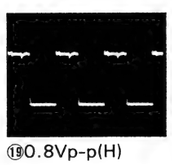

⑭0.8Vp-p(H)

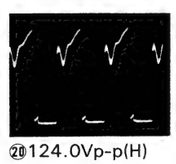

⑮0.9Vp-p(H)

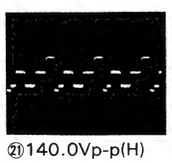
⑯0.8Vp

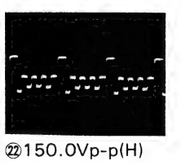

⑰0.5Vp-p(V)

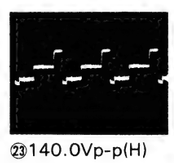

⑱60.0Vp-p(V)


⑲0.8Vp-p(H)


⑳124.0Vp-p(H)


㉑140.0Vp-p(H)

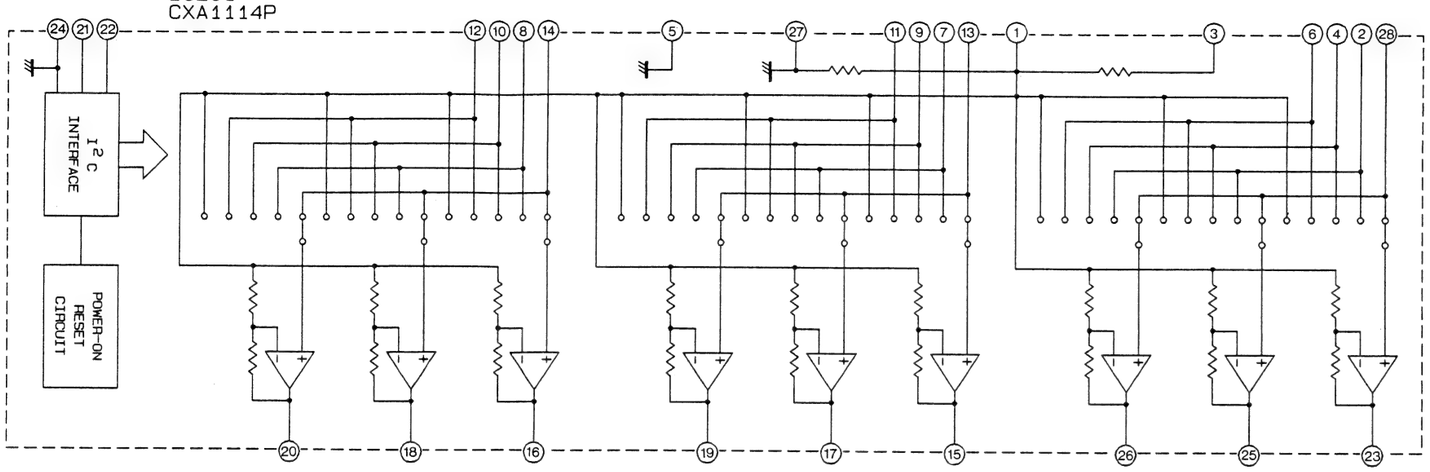

㉒150.0Vp-p(H)


㉓140.0Vp-p(H)

㉔1.9Vp

[PCB-S·W/A·T]
[PCB-AV]

IC2J1
CXA1114P



IC801
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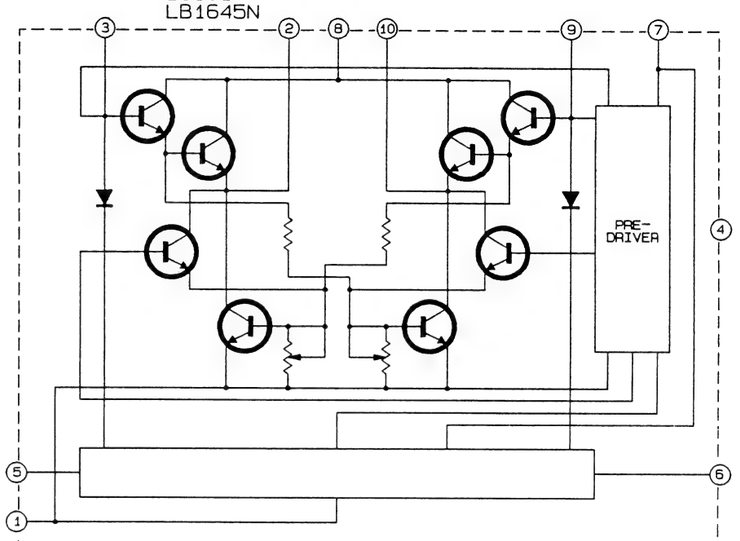

[PCB-SOUND]
[PCB-TEXT]

IC7706
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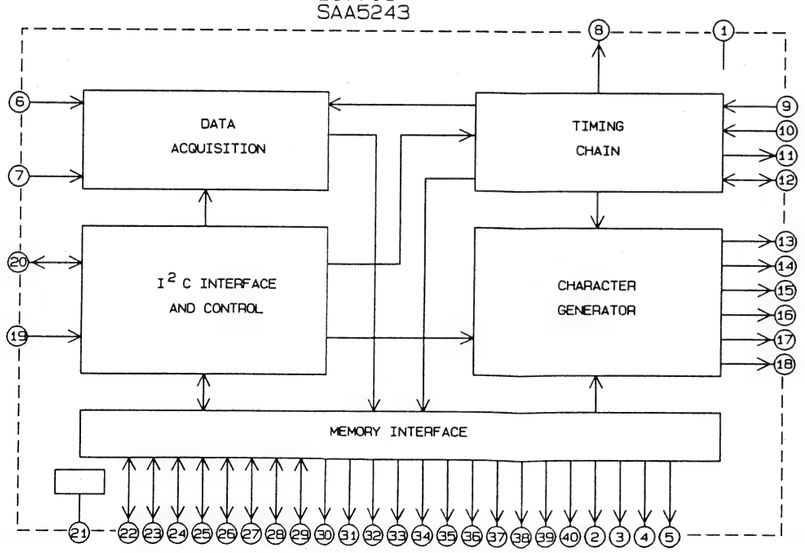

IC7705
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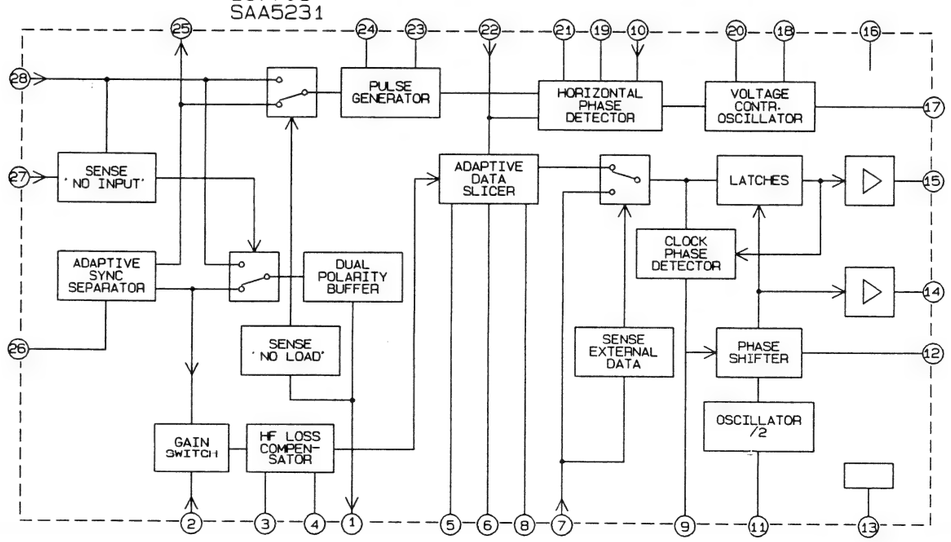

IC3001
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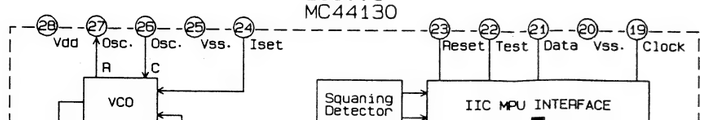

IC3002
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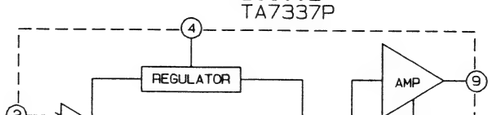

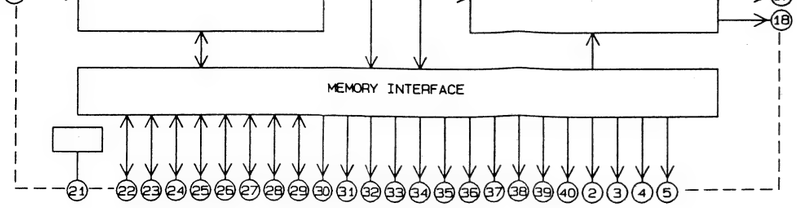

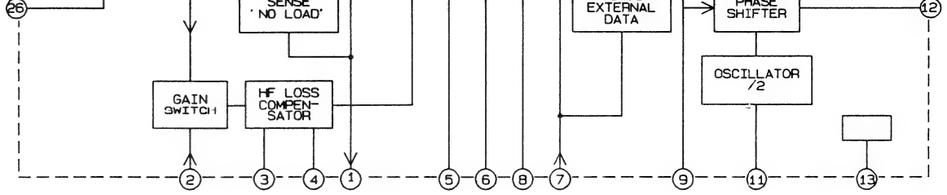

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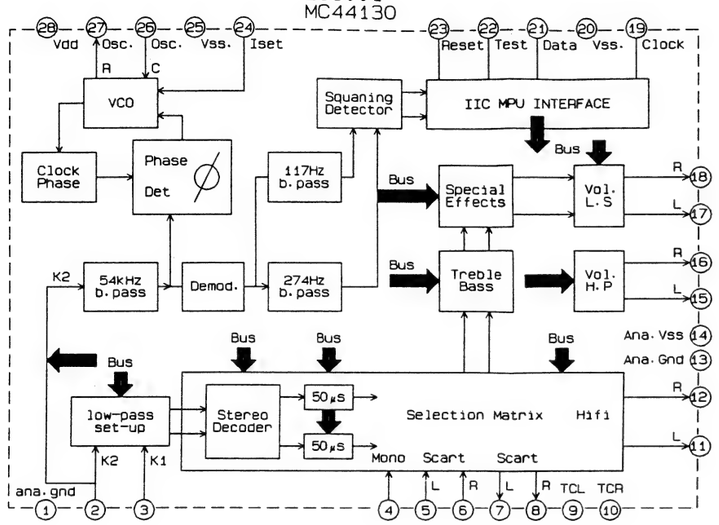

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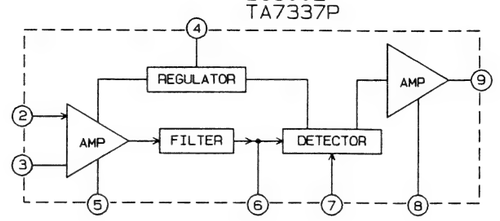
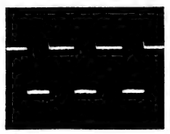
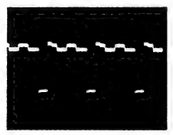


CHASSIS WAVEFORMS

①2.0Vp-p(H)

②1.8Vp-p(V)

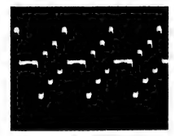

③0.7Vp-p(H)

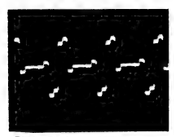

④2.3Vp-p(H)

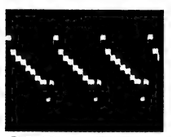
⑤2.2Vp-p(H)

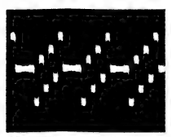
⑥2.3Vp-p(H)

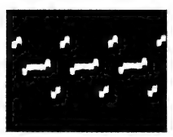
⑦0.7Vp-p(H)


⑧0.9Vp-p(H)

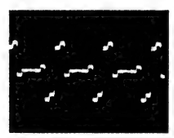

⑨0.8Vp-p(H)

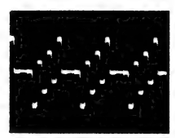

⑩0.8Vp-p(H)


⑪1.0Vp-p(H)

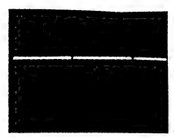

⑫0.8Vp-p(H)

⑬0.9Vp-p(H)

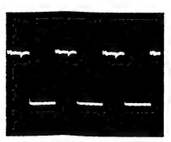

⑭0.8Vp-p(H)

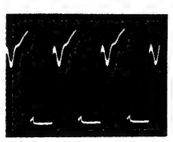

⑮0.9Vp-p(H)

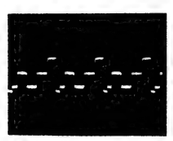
⑯0.8Vp-p(H)


⑰0.5Vp-p(V)

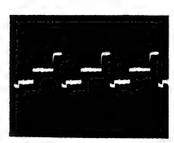
⑱60.0Vp-p(V)


⑲0.8Vp-p(H)


⑳124.0Vp-p(H)


㉑140.0Vp-p(H)

㉒150.0Vp-p(H)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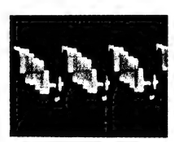
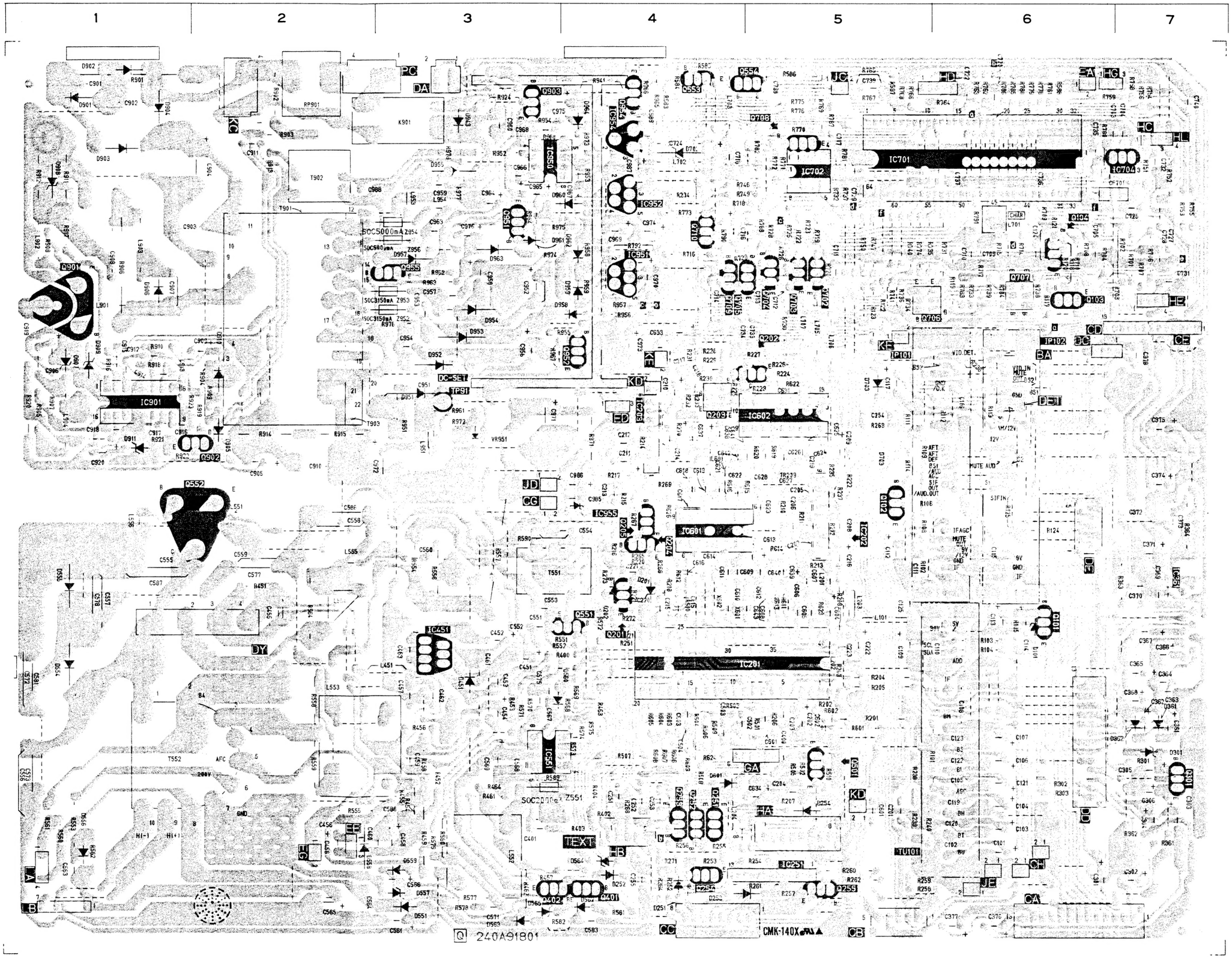

㉔1.9Vp-p(H)

CT-25B2FSM
CT-29B2FSM (3/3)

PCB MAIN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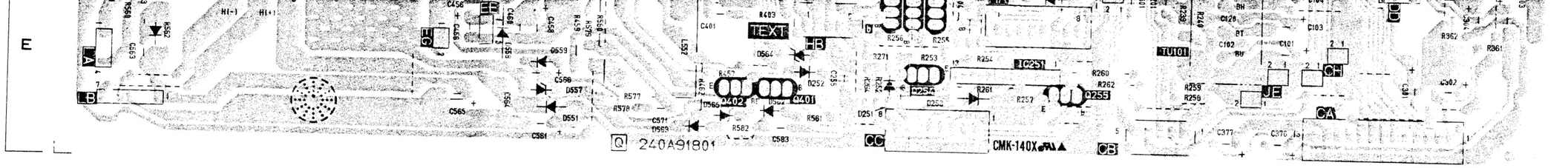
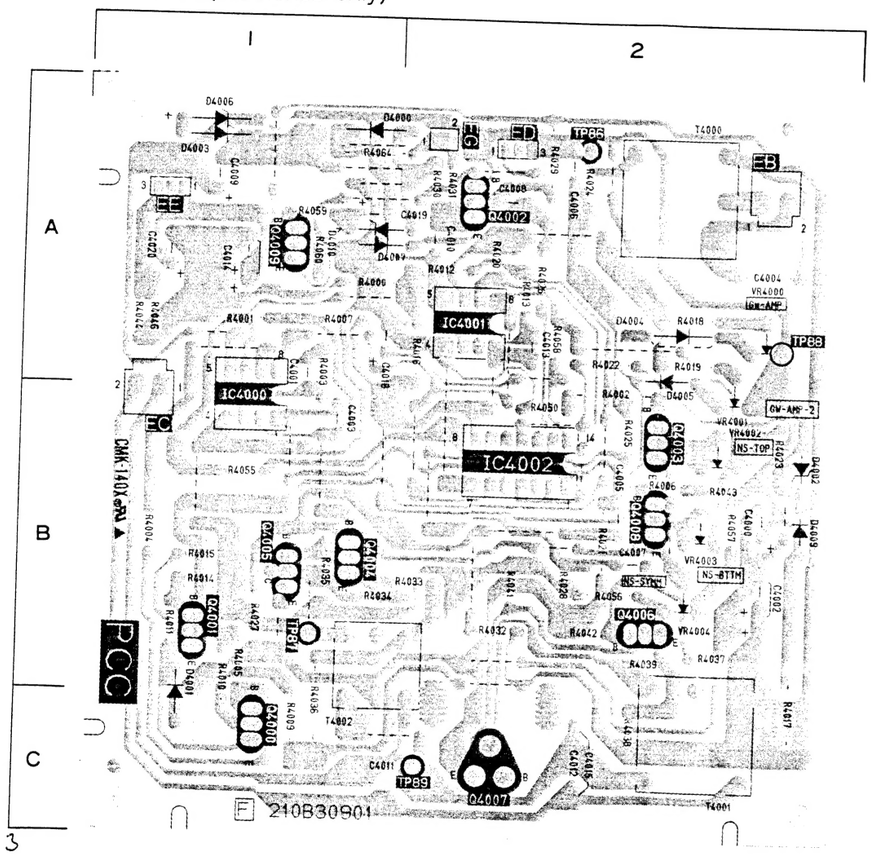
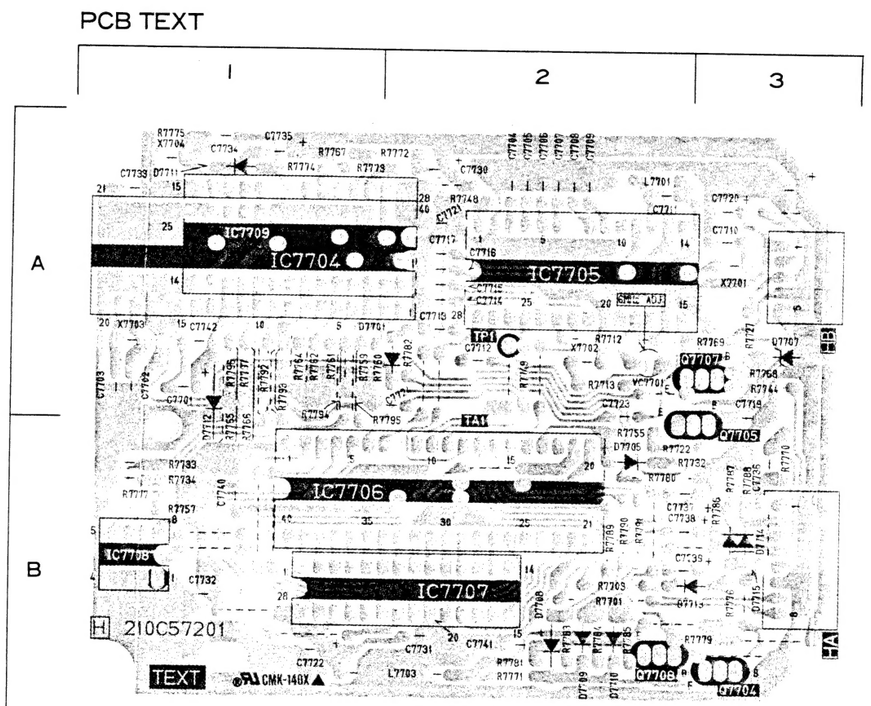


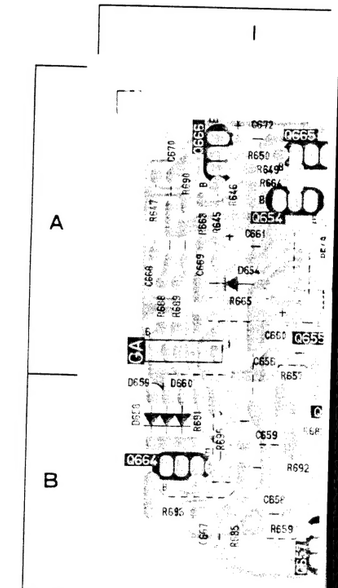
PCB PCC(29inches only)



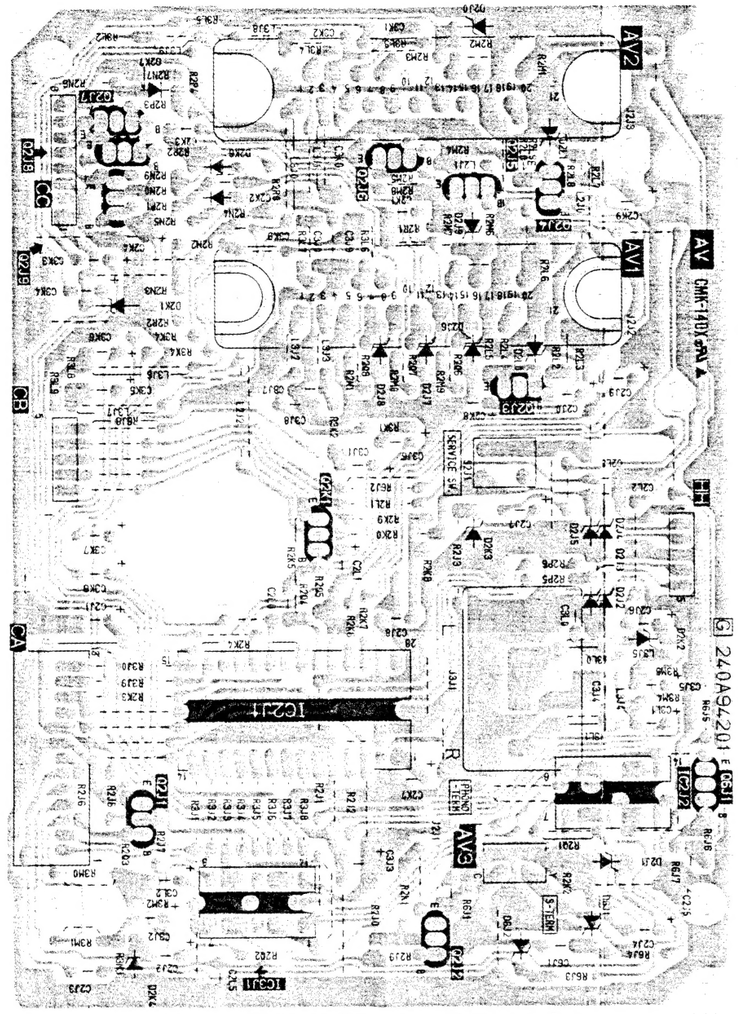
PCB TEXT



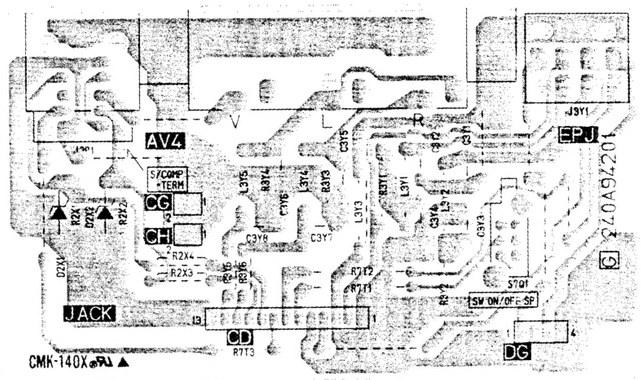
PCB CRT



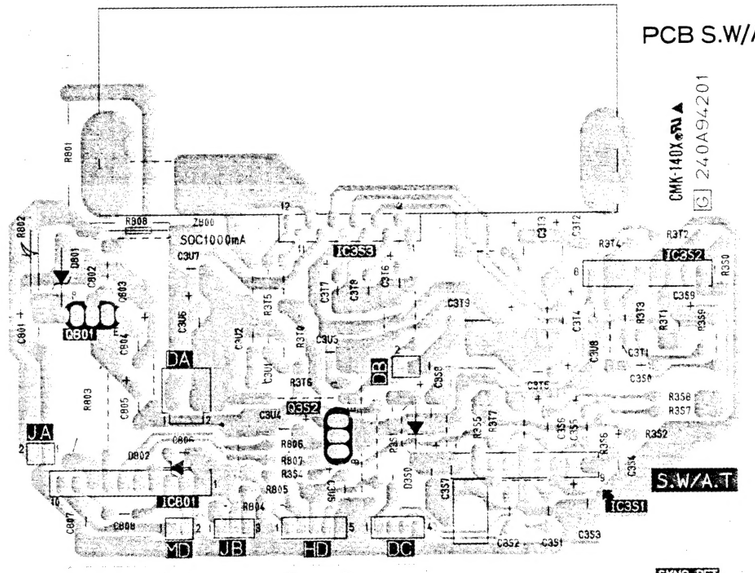
PCB AV

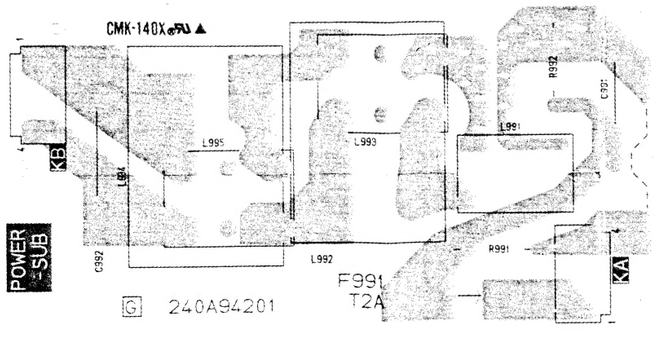


PCB JACK

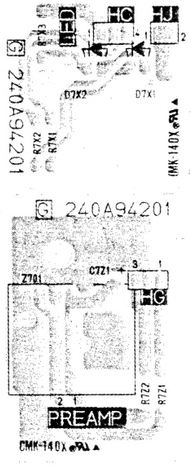


PCB S.W/A.T

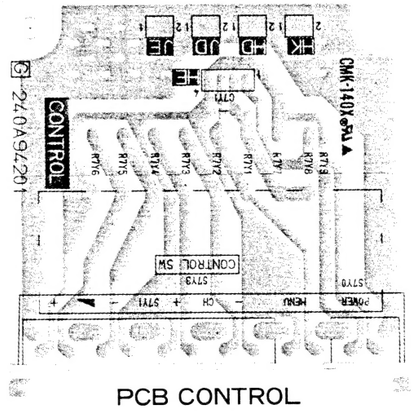




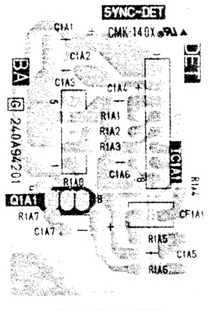
PCB POWER-SUB



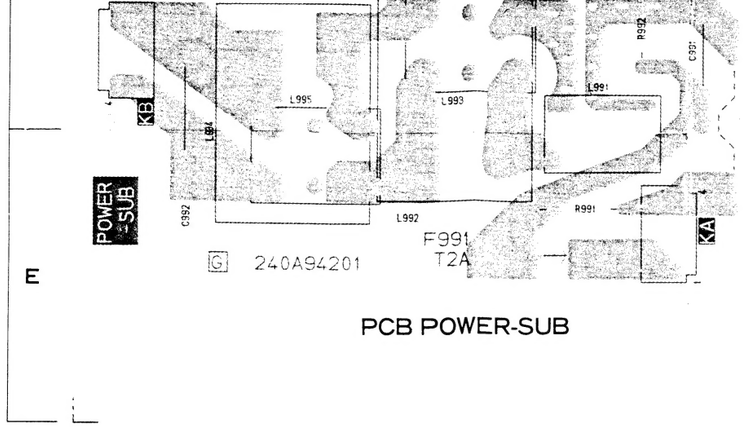
PCB PREAMP



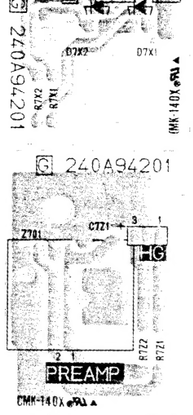
PCB CONTROL



PCB DET



PCB POWER-SUB



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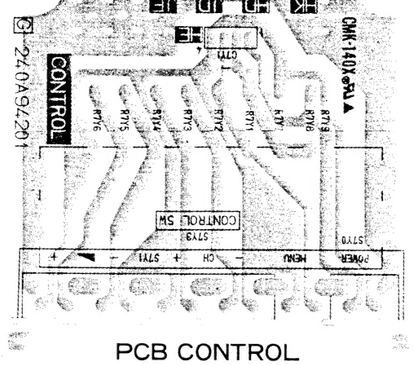
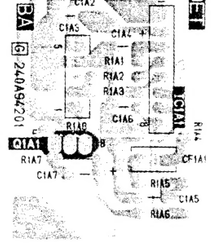
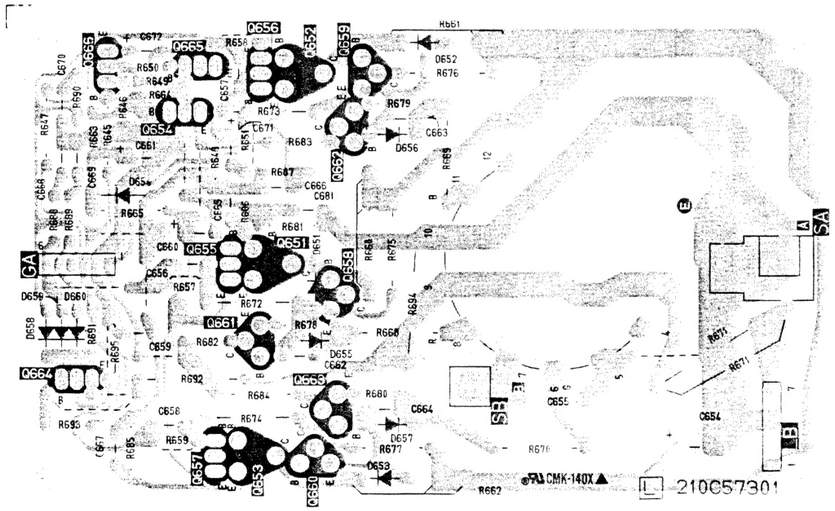
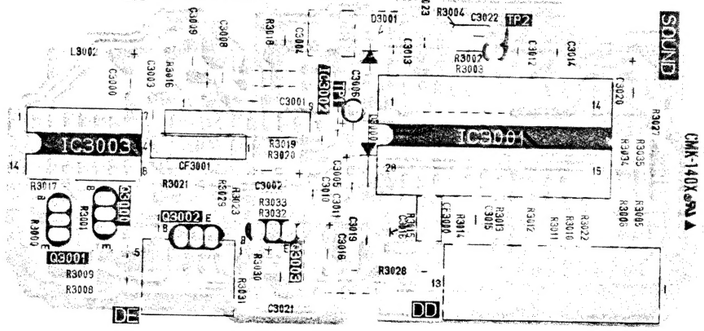


PCB CONTROL



PCB DET

PCB CRT



PCB SOUND